



THE PREVENTIVE MAINTENANCE MONTHLY

ISSUE 556 MARCH 1999

TB 43-PS-556, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Application of the information is optional with the user. Masculine pronouns may refer to both genders.



WHEELED VEHICLES

2

FMTV Radiator Cover, Security	2, 3
Tire Treatments	4
HMMWV Hose Clamp	5
HEMTT Spotter Mirror	6
M1070 HET, PLS Air Cleaner Studs	7
Hydraulic Cylinder Painting	8
JP-8 Fuel Problems	9
Truck Parts NSNs	10-11



MISSILES

40

M2/M3 Bradley TOW Loading	40-41
---------------------------	-------



NBC

42

General Maintenance	27-34
AN/VDR-2 Radiac Set	42-43
AN/PDR-77 Radiac Set	44
M40, M42 Mask Donning	45



COMBAT VEHICLES

12

M1 Tank Exhaust Seal, Hydraulic Lines	12, 13
M2/M3 Bradley M242 Gun Checks	14-15
M88A2 Hercules Oil Samples, Filters	16-17
MLRS Oil Contamination	18-19
G/VLLD Eyepiece Cup	19
AVLB Bridge Storage	20
M109A6 Paladin Shock Absorbers	21



COMMUNICATIONS

46

BB-390A/U Rechargeable Battery	46-47
AN/PVS-7B Night Vision Goggles	48-50



TOOLS

22

Bolt Sizer/Thread Pitch Gauge	22
Magnetic Retrieval Tool	23
Puller Kit Components	24-25
Pocket Multipurpose Tool	26



LOGISTICS MANAGEMENT

52

DA Form 2408-9	51
SMR Codes	52-55



SMALL ARMS

35

M9 Pistol Magazines	35
M2 Machine Gun PM	36-37
M60 Machine Gun Bolt	38-39



SOLDIER SUPPORT

56

Entrenching Tool	56-57
Steam Cleaner Fuel, Parts	58, 59
Plastic Water Can	60

EDITORIAL

Inside Front Cover

CONTINUITY

27

CONNIE'S BRIEFS

Inside Back Cover

You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems, and questions or comments on material published in PS. Just write to:

MSG Half-Mast
The Preventive Maintenance Monthly
LOGSA, Bldg. 5307
Redstone Arsenal, AL 35898-7466

Or E-mail to:

psmag@logsa.army.mil

Internet Address:

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By Order of the Secretary of the Army:

DENNIS J. REIMER

General, United States Army Chief of Staff

Official:

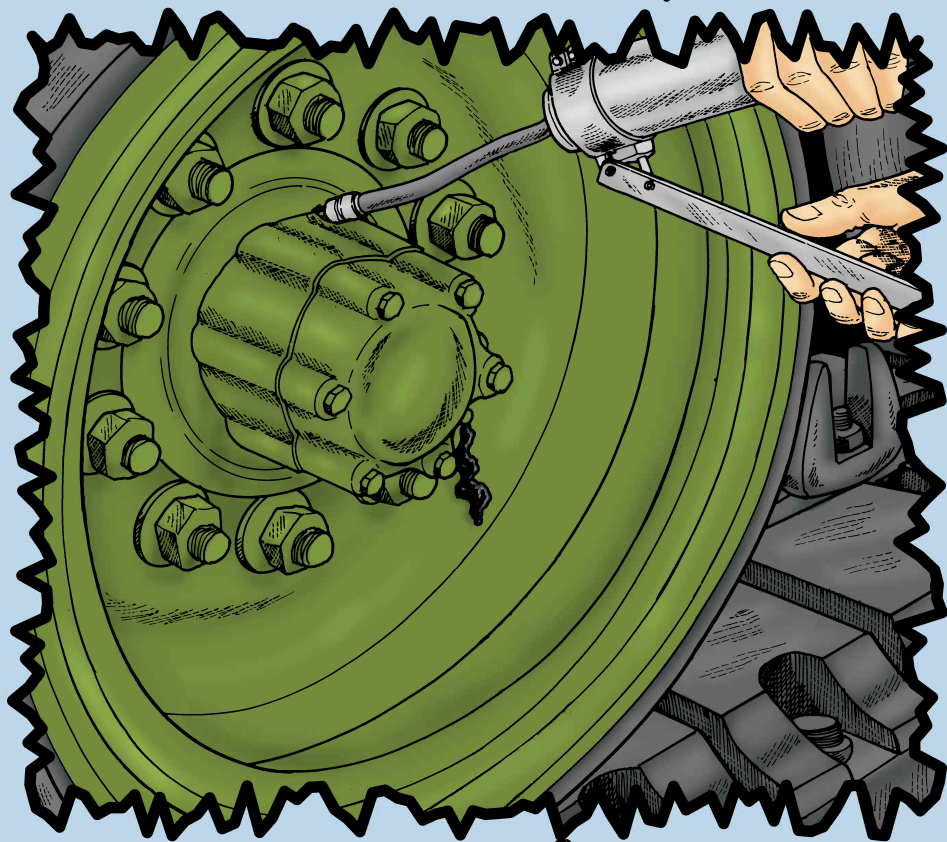
Joel B. Hudson
JOEL B. HUDSON

Administrative Assistant to the Secretary of the Army
05428

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You aren't done **LUBIN'**...



... 'til the old grease
is pushed out!

Issue 556

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1999

THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-556



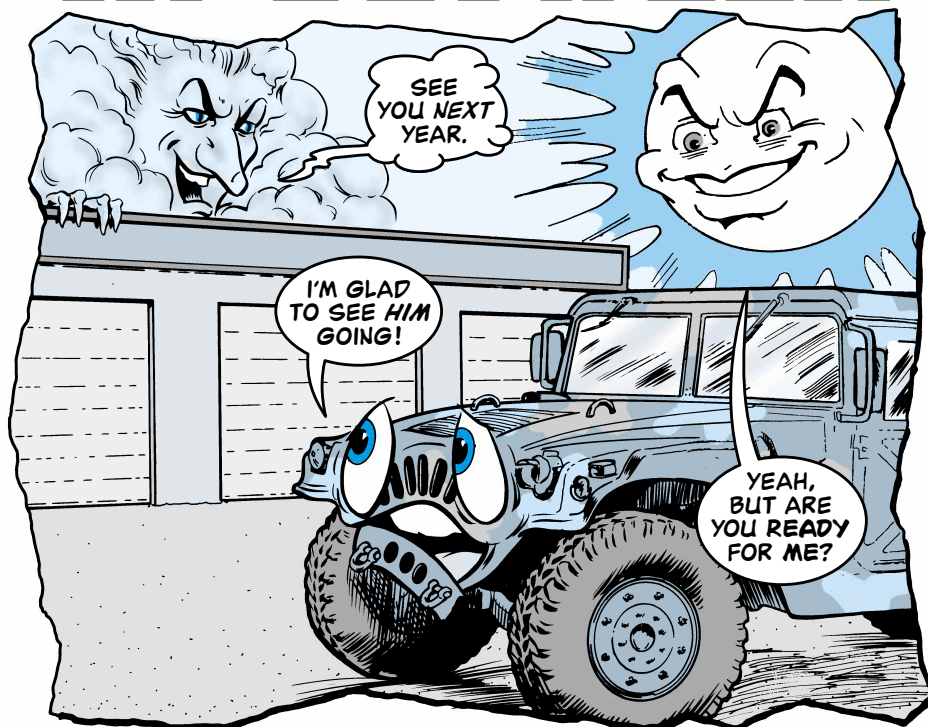
IT'S PERPLEXING
HOLMES! WHERE COULD
THESE CHAPS HAVE BEEN
SCHOOLED IN SUCH
POOR MASK PM?

THE
ANSWER IS
ELEMENTARY,
MY DEAR
WATSON!

Approved for
Public Release;
Distribution Is
Unlimited

Sherlock Holmes and the
Case of the Confused NBC NCO
... See Page 27

IN BETWEEN



Hear those birdies chirping? Feel that warm, wet breeze on your cheek?

See that grass turning green?

Smell that storm in the air?

You can almost taste it, can't you? Spring!

That time of the year when a good mechanic's thoughts turn back to what winter has done to his equipment and look forward to what summer will bring.

Yep, it's time for spring cleaning. Take it one piece of equipment at a time. Find where winter has done its worst and get it fixed. Check all the

fluids. Look in all the nooks and crannies for corrosion, rust, wear and tear. Ask yourself about each piece of equipment, "Where would winter do the most harm?"

Once your equipment is shipshape again, look to the future. Where will you be operating this summer? How often and in what conditions? Ask yourself, "Where will summer do the most harm?"

Spring is the in-between break between winter's cold and summer's heat, but it's not a break from maintenance. It's the time to solve the problems of winter and prevent the potential problems of summer.



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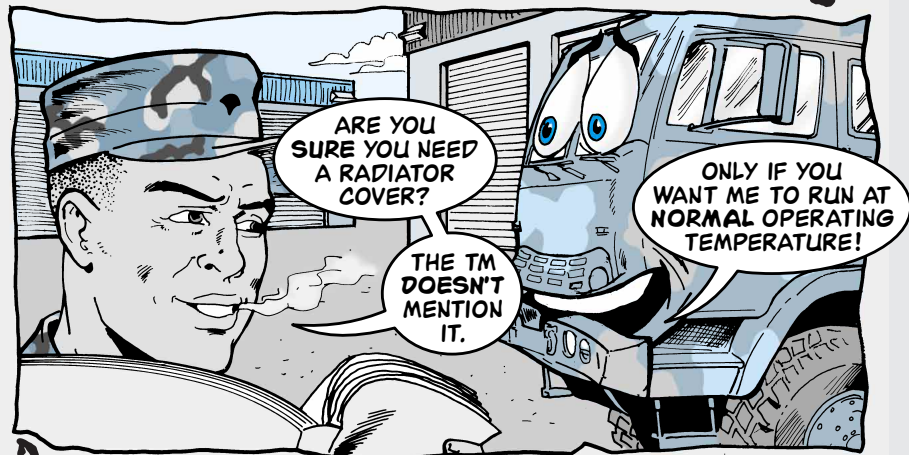
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Radiator Cover Info Missing



Drivers, answer this question: Does your FMTV have a cold weather radiator cover to help keep the engine at normal operating temperature when it's cold outside?

If you answered no, you're like most drivers. In fact, you've probably never even heard of the cover, much less seen it. That's because there's no reference to its use in either -10 TM.

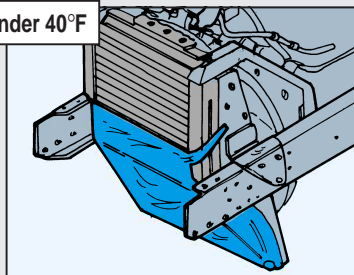
The cover, NSN 2540-01-453-6945, is installed by mechanics when outside temperatures will be consistently below 40°F. Mechanics have to do the work because installation involves the use of a torque wrench.

Install radiator cover for temperatures consistently under 40°F

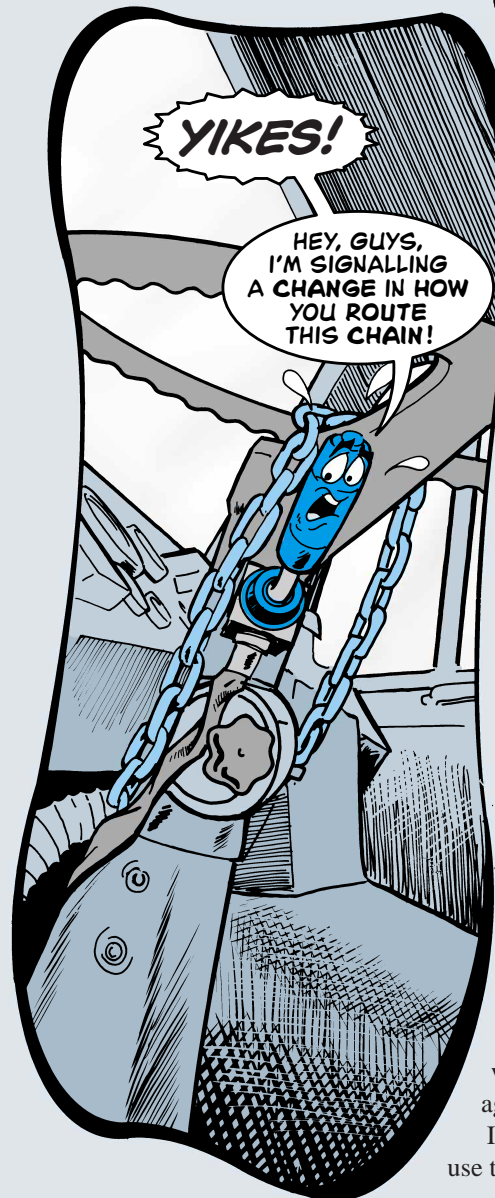
Installation and removal instructions are found in Para 18-12 of both TM 9-2320-365-20-4 for 2½-ton models and TM 9-2320-366-20-5 for 5-ton models.

Until the -10 TMs are updated with cover use information, here's what you need to know:

- It **can** be removed any time outside temperatures are above freezing.
- The radiator cover **should** be removed when the outside temperature is above 40°F.
- It **must** be removed before temps reach 70°F to prevent equipment damage from overheating.



Lock It Up Right

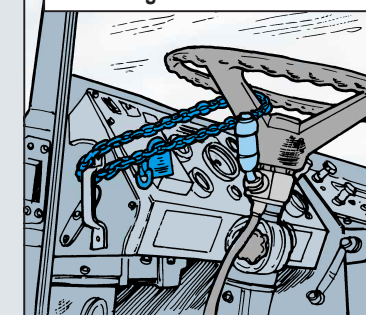


Drivers, there's one right way and any number of wrong ways to secure your vehicle. Doing it right prevents wiring harness and turn signal lever damage.

The right way is shown in Revision B versions of TM 9-2320-365-10 (Para 2-21) and TM 9-2320-366-10 (Para 2-27). If you don't yet have Revision B TMs, make note of this:

The chain is routed around a steering wheel spoke and through the dash-mounted handhold, then locked.

Chain goes around wheel spoke and through dash handhold



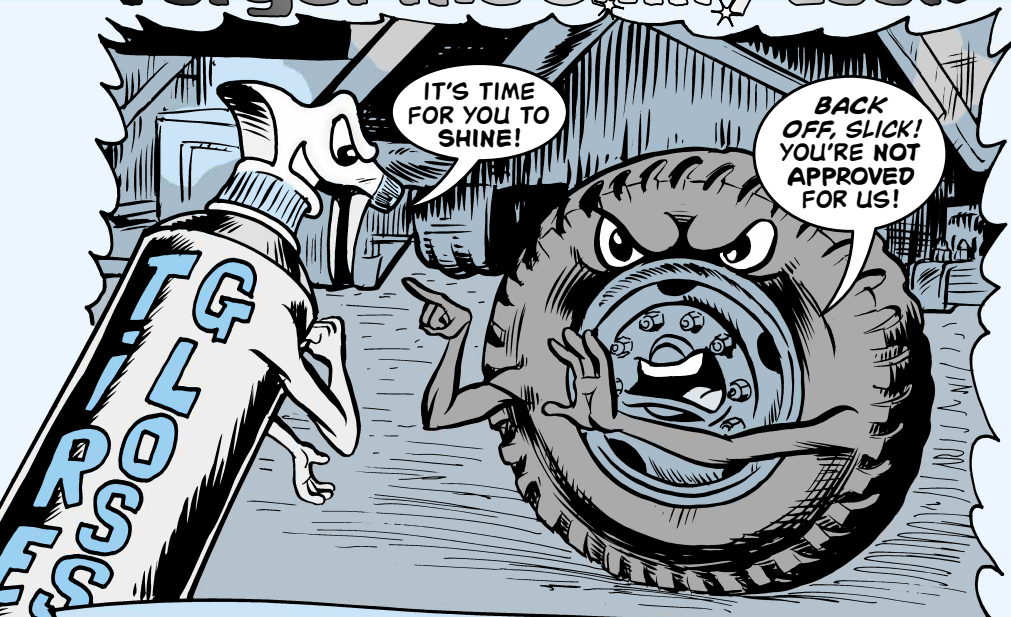
If you loop the chain around the wheel and steering column, you can cause wiring harness damage.

Plus, using the chain as a handhold when you get into the cab can damage the turn signal lever.

Install the chain and lock right and use the handholds provided to get in.

Tires ...

Forget the Shiny Look



Dear Half-Mast,

Some of the guys in my unit are going back to the old trick of putting a shine on their truck tires to make them look like new.

Is that OK? What products ARE authorized for use on tactical truck tires?

SGT R.R.

Dear Sergeant R.R.,

Forget the dressing.

Team Tire at the Tank-automotive and Armaments Command doesn't authorize commercial products for that shiny tire look. It doesn't help the tire—and hinders your camouflage.

Instead, use these approved rubber preservatives listed in the chart on the right. They will reduce cracking.

To get the most life from your tires, wash them with soap and water and keep them inflated properly.

Half-Mast

NSN 8030-01-	Quantity
314-2213	1 quart
282-5626	1 gallon
314-2214	5 gallons
314-2215	55 gallons

HMMWV ...

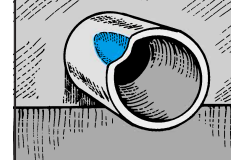
MOVE HOSE CLAMP TO STOP LEAKS

Something as simple and easy as repositioning a radiator hose clamp may stop a minor leak and save your unit the price of a new HMMWV radiator.

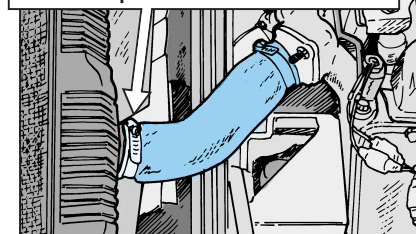
The radiator inlet connector and hose sit high and unprotected in the engine compartment, making them a target for damage.

The hose may not show damage, but the inlet connector may be bent out of shape, causing the leak.

Damaged connector may allow leaks



Move clamp and hose closer to radiator



If that's the case, save the price of a new radiator by moving the clamp so it tightens around an undamaged part of the inlet.

'Course, if that doesn't work, or if the damage is too great, then you'll have to replace the radiator.



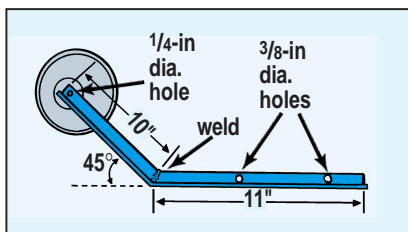
HEMTT ...

Out, Out Blind Spot

Get rid of the blind spot on the right side of your HEMTT by adding a spotter mirror to the cab.

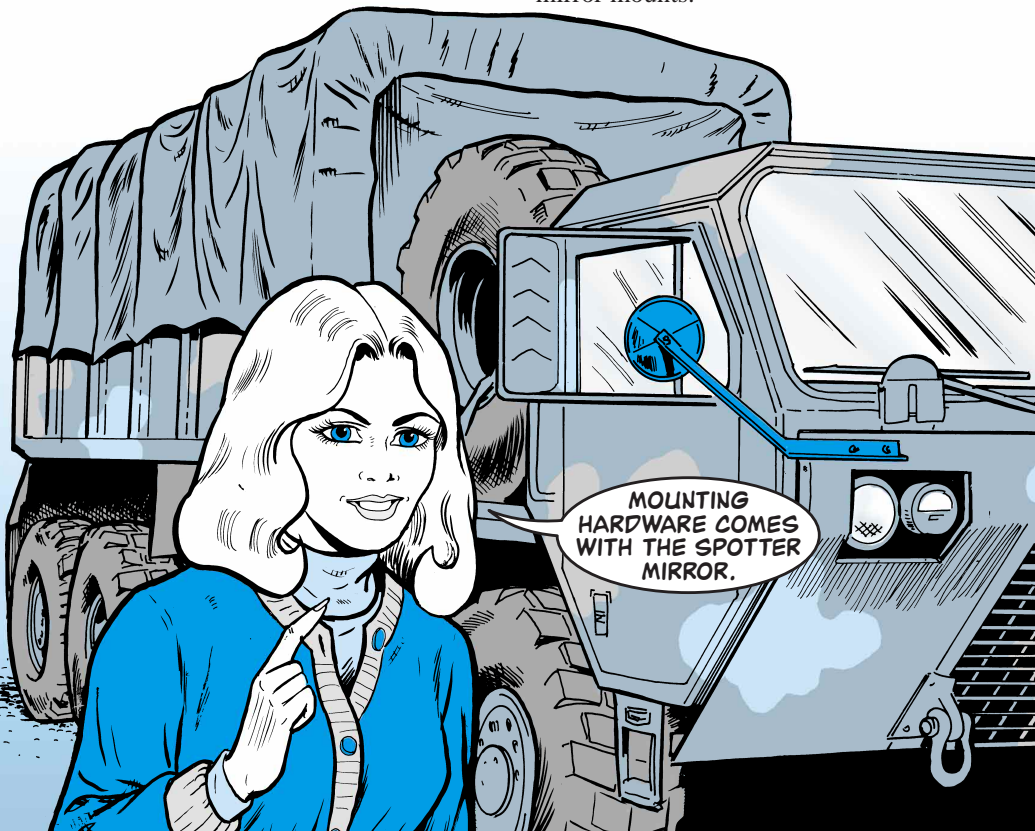
This spotter mirror, NSN 2540-00-401-8337, lets drivers see the area below the front bumper to the second set of wheels. On the road, it lets drivers keep track of cars passing and being passed.

To install the mirror, you'll need a 21-in section of 1-in angle iron. Cut and weld the angle iron at a 45° angle so you have a 10-in leg and an 11-in leg.



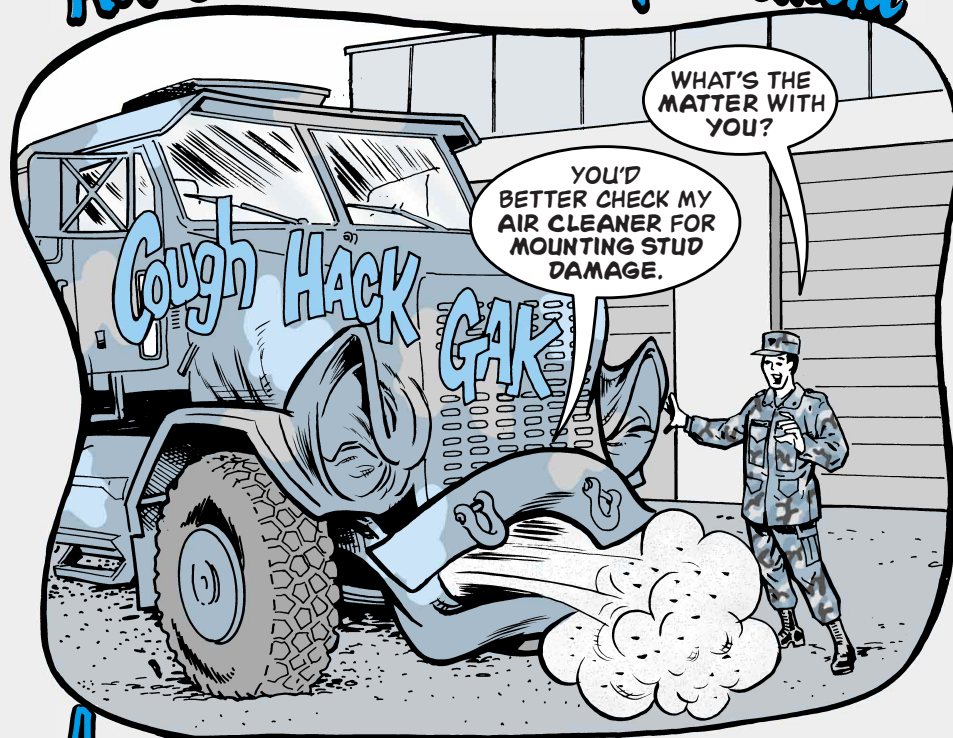
The 11-in leg is mounted to the cab using the first two bolts of the right front bumper. Drill 3/8-in holes in the leg to match the bolt holes.

Before you mount the leg to the cab, drill a 1/4-in hole one inch from the end of the 10-in leg. That's where the mirror mounts.



M1070 HET, M1074/M1075 PLS ...

Air Cleaner Stud Replacement

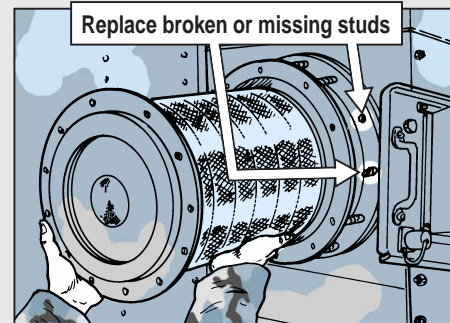


Air cleaner assemblies for M1070 HET and M1074 and M1075 PLS tractors are not cheap, so it's tough to replace one just because a mounting stud is damaged or missing.

But, if the assembly doesn't seal correctly, the truck engine can be damaged, and that can be even more expensive.

So, keep the seal between the air cleaner mount and the element container tight by using stud replacement kit, NSN 5307-01-456-6938.

The kit contains one stud, one retainer and one washer. Order as many kits as you have damaged or missing studs.



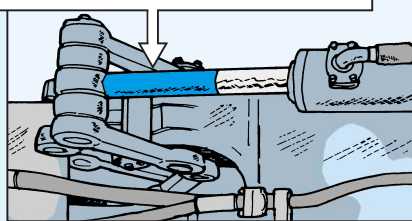
Paint Kills Seals



Dried paint is a big killer of hydraulic cylinder seals.

Most paint gets on cylinder rods because somebody didn't mask the rods before the equipment went to the paint shop. As the rod extends and retracts, the paint tears at the seal.

Paint from unmasked rods ruins seals



But even if you were on the ball and masked the rod, some overspray can

get on it. Between the heavy paint or overspray, seals are ruined and begin to leak.

To remove paint from cylinder rods after a trip to the paint shop, use epoxy and polyurethane paint stripper. Here are available quantities and NSNs:

Qty	NSN 8010-00-
1 pint	142-9273
1 gallon	181-7568
5 gallons	926-1488
55 gallons	926-1489

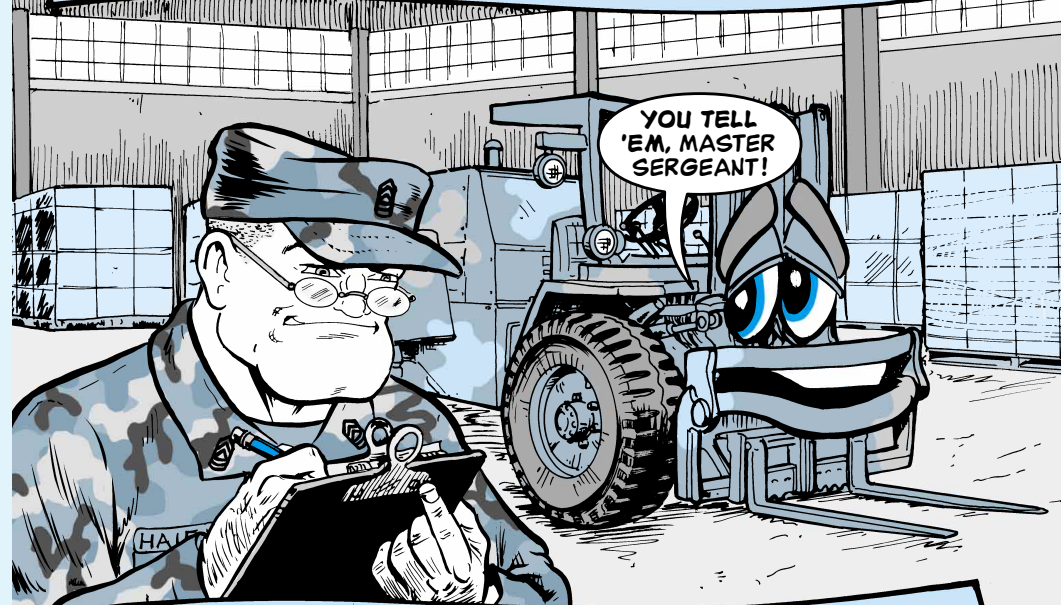
Be careful to keep the stripper off non-metal surfaces, such as plastic and rubber, where it may cause damage.

Switching to JP-8 Fuel?

Dear Half-Mast,

Our unit recently switched fuels, from DF-2 to JP-8. Since then, the engines on our equipment run rough and stall out. What can we do about it? Is JP-8 the reason?

SGT M.W.



Dear Sergeant M.W.,

Probably. JP-8 is a kerosene-based fuel that breaks gunk and contaminants free from the sides of the fuel tank and lines. Those contaminants are filter cloggers.

So, when you first switch a vehicle to JP-8, pay close attention to engine performance. Replace the fuel filter when the engine starts to idle rough or run rough. It's clogging up, but this clogging should stop after two or three filter changes.

JP-8 won't damage the engine. And you don't have to add any lubricating help—like engine oil, brake fluid or transmission fluid—to the fuel. That will just clog the filter more and reduce engine performance.

Half-Mast

Signs of the Times

HET Steering Pump

NSN 2530-01-337-4110 gets the power steering pump for the M1070 heavy equipment transporter. The NSN shown for Item 1 in Fig 181 of TM 9-2320-360-24P is wrong.

Patriot Trailer Fenders

NSN 2510-01-439-3432 gets the fender for an M860A1 Patriot trailer. The NSN is missing from Item 6 in Fig 46 of TM 9-2330-357-14&P.

M939A2-Series Turbocharger

NSN 2990-01-446-5359 brings an improved turbocharger for M939A2-series trucks. When your 5-tonner's turbocharger calls it quits, order this new kit. It gives more boost with improved response time and durability. Turbo kit, NSN 2950-01-275-7479, shown in TM 9-2320-358-24P, is no longer available.

HETS Check Valve Breather

NSN 2805-01-136-5611 gets the breather for the check valve on the hydraulic reservoir of the M1000 semitrailer's gooseneck. The parts info shown for Item 5 in Fig 89 of TM 9-2330-381-24P is wrong.

M939/A1-Series Lifting Shackle

NSN 4030-01-222-6037 gets the lifting shackle for the 5-ton truck's bumper. The NSN shown as Item 1 in Fig 175 of TM 9-2320-272-20P is wrong. Order NSN 5315-00-741-2924 for the pin and chain assembly, or NSN 4030-01-372-9833 for a kit that includes both the shackle and the pin and chain assembly.

INFO LIKE THIS...

...KEEPS US...

HEMTT Fuel Line Fitting

NSN 4730-01-320-5314 gets the fuel line elbow fitting shown as Item 17 in Fig 11 of TM 9-2320-279-20P. The parts info shown in the TM is wrong.

...OUT OF THE SHOP...

M915-, A1-Series Tachograph Key

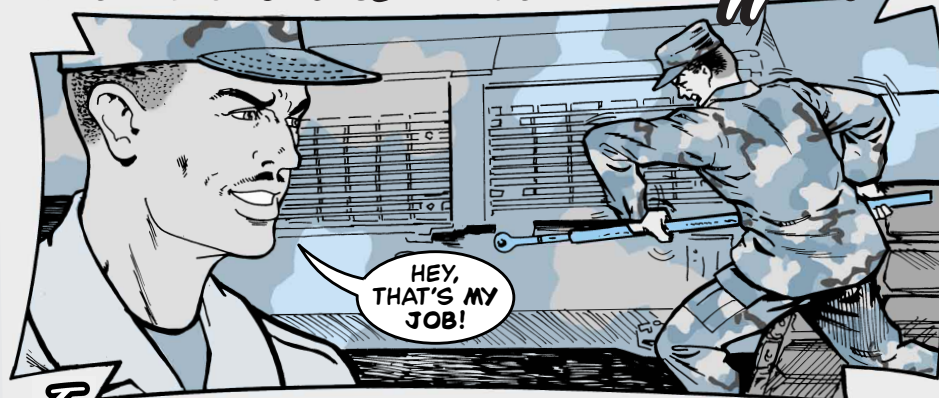
NSN 6680-01-188-5073 gets the tachograph key for your tractor trucks. The key is Item 6 in Fig 307 of TM 9-2320-273-24P and Item 13 in Fig 147 of TM 9-2320-283-24P.

M915/M915A1-Series Pin

Cotter pin, NSN 5315-00-187-9567, can be used instead of the straight pin/cotter pin combination on the tractor truck hood and battery box. This new pin won't rust and lasts longer than the pins shown as Items 12 and 13 in Fig 50 and Items 26 and 29 in Fig 246 of TM 9-2320-273-24P.

...AND ON THE ROAD!

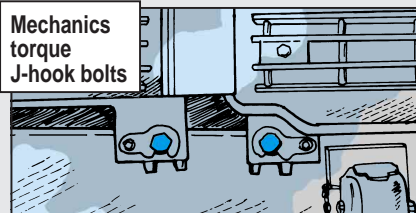
Seal PM Is a Team Effort



Tankers, your -10 TMs say to check the engine exhaust seal monthly for cuts, tears or burns. But, it's what you do **after** that check that often decides what the seal's condition will be like next month.

After closing the exhaust grille doors, you need to secure them in place with two bolts and J-hooks. That's where the problem starts.

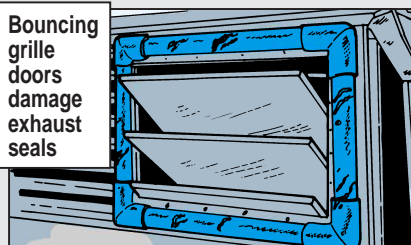
The bolts are supposed to be torqued to 295–350 lb-ft. Since crewmen don't have a torque wrench, a mechanic should do the job.



Unfortunately, some crewmen try to tighten the bolts themselves. When the bolts come loose, the grille doors bounce up and down and tear up the

seal. Then you have to call in a mechanic anyway—to replace the seal.

Bouncing grille doors damage exhaust seals



Mechanics, before you torque the bolts, make sure you coat 'em with antiseize compound, NSN 8030-00-597-5367. That makes the bolts easier to remove next time.

Also, you may notice a little gouging on the surface of the J-hooks as you torque down the bolts. The J-hooks are made from a lower-grade steel, so gouging is common.

Don't let it stop you from tightening the bolts to the proper torque, though. Replacing a J-hook is a lot cheaper than buying a new grille door or exhaust seal.

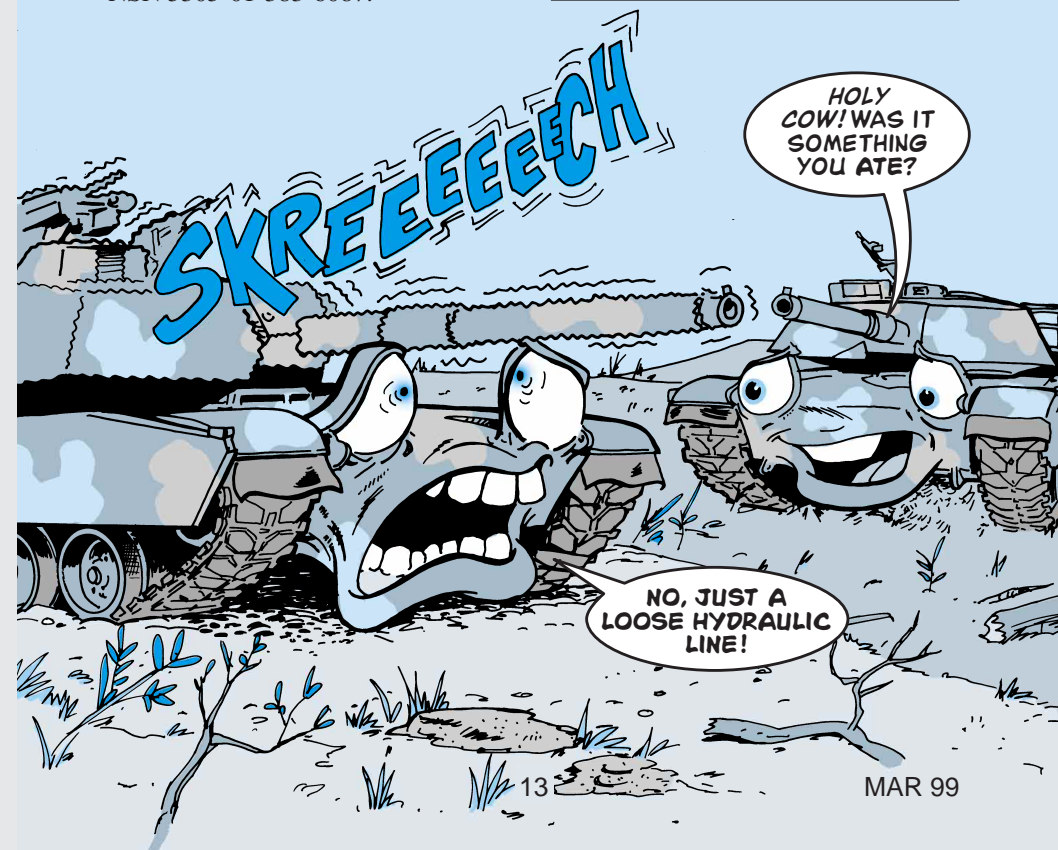
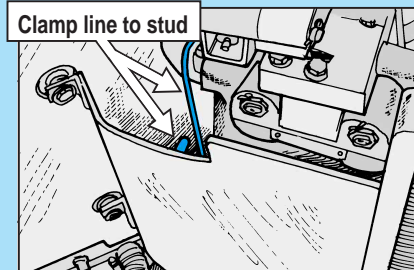
Clamp Down on NOISE

Tankers, if you suddenly hear a high-pitched squealing noise coming from the hydraulic manifold on your M1-series tank, don't panic. It could be something as simple as a missing clamp.

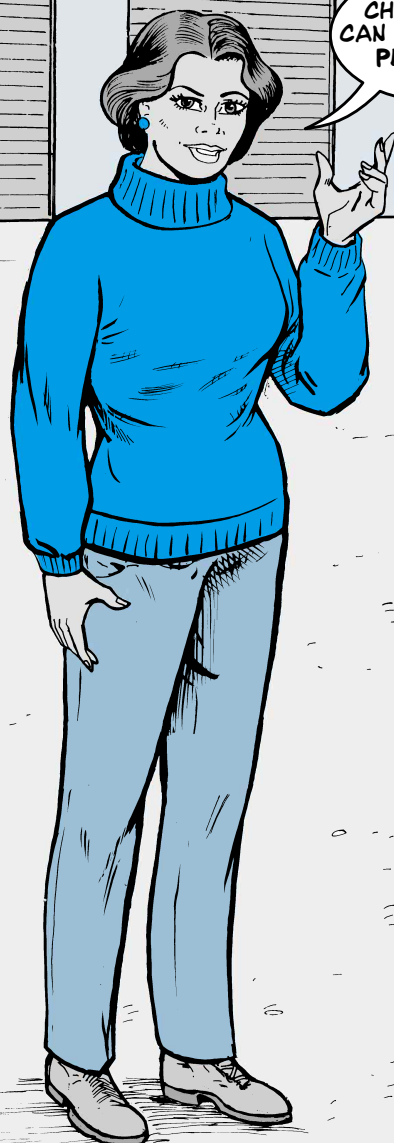
When mechanics replace the hydraulic manifold filters, they sometimes forget to reattach the line from the check valve to the stud on the reservoir guard. During operation, the unattached line vibrates fast enough to create the noise.

Look for clamp, NSN 5340-00-079-7837, where the hydraulic line attaches to the reservoir guard. If it's missing, get your mechanic to put a new clamp on the hydraulic line and attach it to the reservoir guard stud with screw, NSN 5305-01-383-6087.

Clamp line to stud



The M242 Quick Checkup



TWO CHECKS NOW CAN SAVE MANY PROBLEMS LATER!

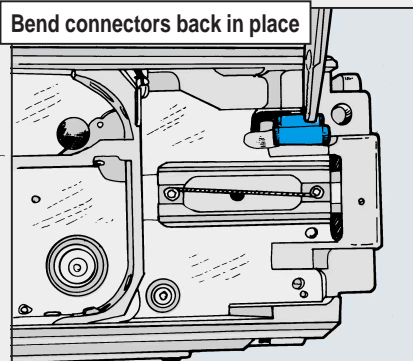


Two quick checks of your Bradley's M242 automatic gun before you leave the motor pool will put you in fine shooting shape for the field.

1. Eyeball the 14-pin connectors on the receiver and feeder. If the connector shell is bent or pins are bent or missing, the M242 won't be doing any firing. Tell your repairman.

Repairman, remember that bent connectors aren't always ruined. Gently bend the connectors or pins back into place with needle-nosed pliers. Install

Bend connectors back in place

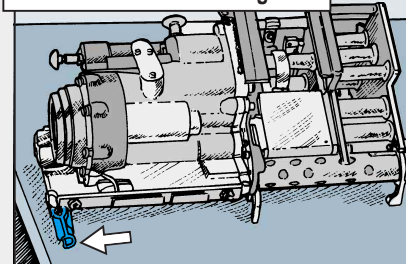


the feeder on the receiver and test the connection. A little bending often does the trick.

Prevent connector problems by emphasizing to your crews that the drive shaft must be pushed up before the locking level is pushed down when the feeder's installed. If any resistance is felt when the lever's pushed down, crewmen need to stop pushing and reposition the feeder.

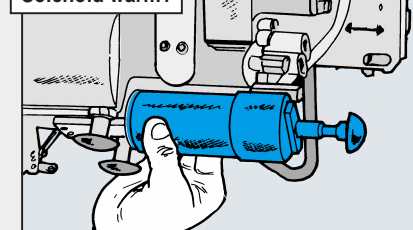
It also helps to set the feeder on the floor with the locking lever down. That keeps the connector off the floor and out of harm's way.

Set feeder down on locking lever

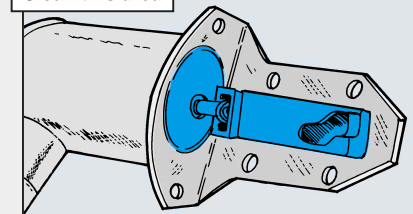


2. Feel the solenoid. With the M242 installed and turned on, touch the feed select solenoid. If it's warm, the M242 won't select when you go from HE to AP. Your repairman needs to take off the solenoid and clean out any dirt that has built up where the solenoid fits on the feeder.

Solenoid warm?



Clean this area



Learn Hercules Lessons Early

THE M88A2 RECOVERY VEHICLE—THE HERCULES—IS BRAND SPANKING NEW, CREWMEN. THAT MEANS IT'LL TAKE SOME TIME TO LEARN ALL OF ITS QUIRKS, SUCH AS...

✱ The first report you get back from the Army Oil Analysis Program (AOAP) will most likely point out an abnormally high level of silicon in the engine oil.

Don't worry. There's nothing wrong with the engine. That initial high silicon level comes from the manufacturing process and is **not** unusual.

Just follow the AOAP report instructions and change the oil and filter.

The next sample should be fine.

HM-MMM... THAT'S A LOT OF SILICON!

✱ The transmission oil filters, NSN 2940-01-434-5206, normally become clogged after the first 150 hours of use in a new vehicle.

When the hour meter on your vehicle's engine reaches that 150-hour plateau, TACOM says you may want to consider changing the filters. Of course, you can always wait until the clogged filter indicator comes on.

Filter life should be normal, approximately 750 operating hours, after the first change.

150 HOURS, I'M READY FOR MY NEXT FILTER.

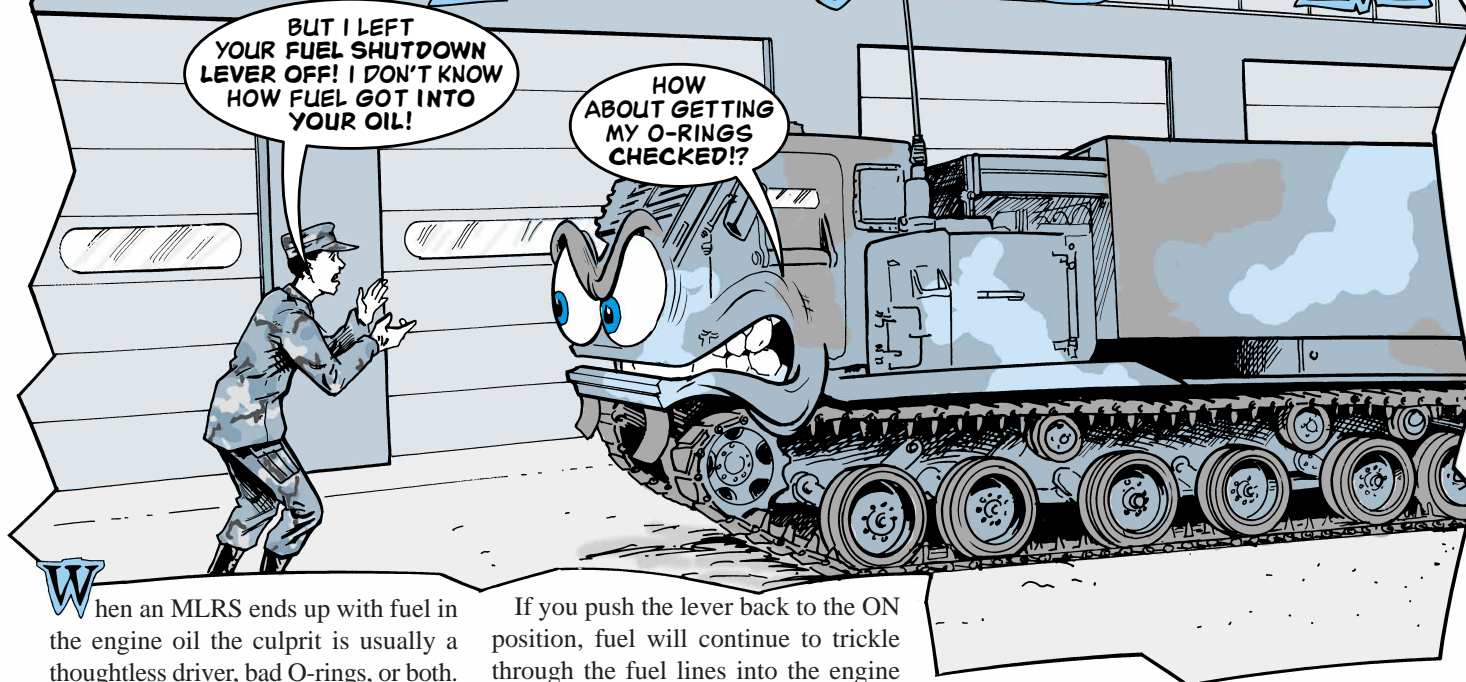
✱ Taking off the main winch assembly housing, or nose piece, means removing the 44 bolts that hold it in place.

Each bolt that is removed puts extra stress on the remaining ones. That extra stress can snap or strip some of the bolts.

Make sure you use a lifting device—a wrecker or another M88—to support the weight of the nose piece as you remove the bolts. That prevents shifting and keeps bolts in good shape.

YOU'RE GONNA STICK WHAT UP MY NOSE?!

Fuel and Oil Don't Mix

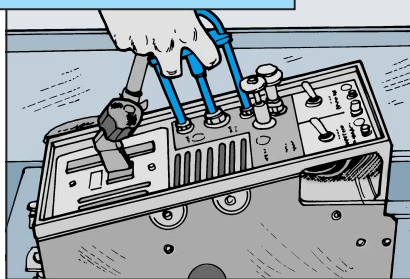


When an MLRS ends up with fuel in the engine oil the culprit is usually a thoughtless driver, bad O-rings, or both.

Drivers

Make sure you always leave the fuel shutdown lever pulled up in the OFF position after shutting down the vehicle.

Keep lever up in OFF position when vehicle is shut down



If you push the lever back to the ON position, fuel will continue to trickle through the fuel lines into the engine cylinders, past the piston rings and into the oil. Thinned-out oil doesn't lube well, so parts wear out quicker. Your engine could lock up.

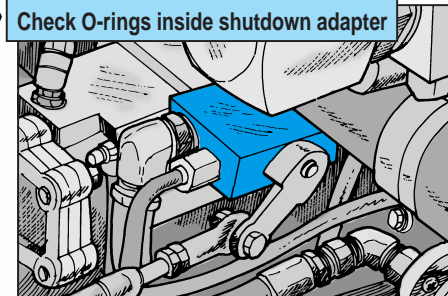
O-rings

Friction from constant use of the fuel shutdown lever wears out the O-rings on the fuel shutdown adapter stem.

Worn out O-rings are just as bad as leaving the shutdown lever ON. Fuel seeps past the O-rings and ends up contaminating the engine oil.

Mechanics, check the O-rings during semiannual maintenance. Look for cracks, tears or abrasions that could allow fuel to pass by.

Check O-rings inside shutdown adapter



If the O-rings show signs of damage—nicks, cuts or wear—replace 'em. Just make sure you use the right O-rings.

There are two different fuel shutdown adapters used for the MLRS. If the adapter has RM0097 imprinted on the side of the adapter valve, use the O-rings from kit, NSN 4810-01-389-6406. All other adapters take the O-rings found in kit, NSN 4820-01-270-7591.

Eyepiece Saver

Dear Editor,

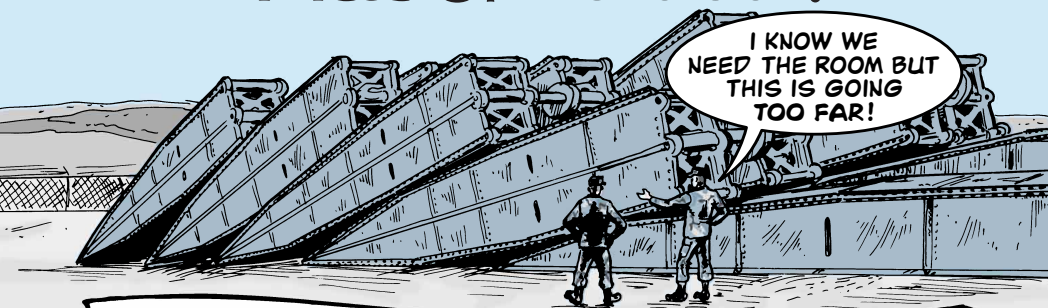
A couple of trips to the field are usually all it takes for a G/VLLD's eyepiece cup to come off and disappear. Without the cup, it's difficult to sight through the G/VLLD.

Use electrical tape or something similar to tape the cup to the eyepiece. Wrap the tape twice around the cup and eyepiece, making sure the tape doesn't interfere with the eyepiece's movement.

Troy Andrews
Directorate of Logistics
Ft Riley, KS



Flat or Folded?



Dear Half-Mast,

Chapter 5 of TM 5-5420-203-14 says there are only two ways to store your AVLB bridge—in clamshell mode on the launcher, or flat on the ground without the launcher.

Problem is, storing the bridges flat takes up a LOT of space.

Since the TM says you can store the bridge folded on the launcher, why can't you store it folded on the ground?

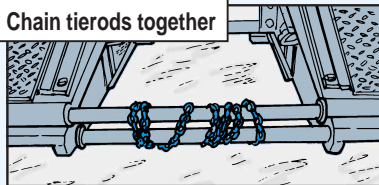
CPT P.V.H.

Dear Captain P.V.H.,

The folks at TACOM agree with you, Sir. They say the bridge **can** be stored in the clamshell standby mode on hard stand or ground as long as these conditions are met:

• You raise the bridge to a near-vertical position and secure the tierods together using $\frac{3}{8}$ -in chain or wire rope.

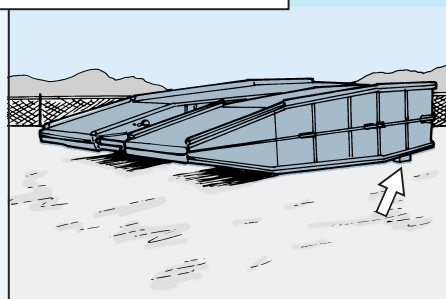
Chain tierods together



• The bridge is supported by wooden blocks and angled so that

the launcher can engage and disengage the bridge without damaging the tierods.

Place blocks under back end



• Once disconnected, the bridge's tierods remain secured together.

Make a note until the TM can be updated.

Half-Mast

Don't be Shocked!

Mechanics, pick one of these three options before you use M992 ammo carrier shock absorbers on the Paladin:

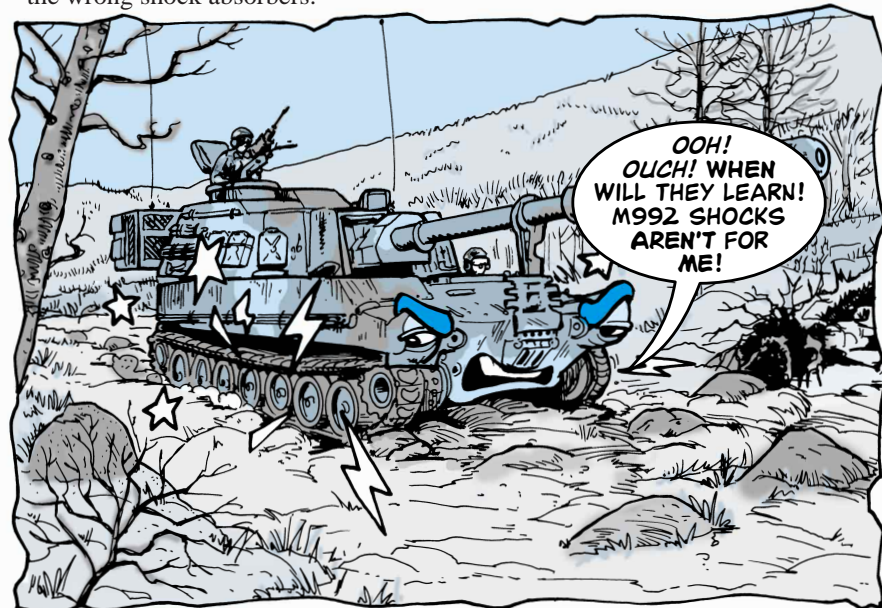
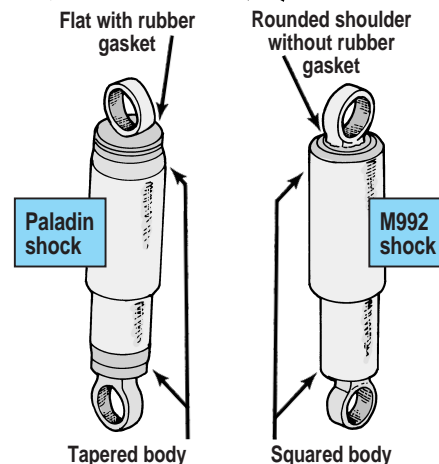
1. Stop.
2. Cease.
3. Desist.

Otherwise, you're in for a real shock.

M992 shocks, NSN 2510-00-801-6691, will fit the mounting brackets on both vehicles, but they are not designed to handle the weight, shock factors, center of gravity or vibration transfer of the Paladin.

The Paladin shock absorber, NSN 2510-01-303-2933, costs more, but it won't have to be replaced as often. You also won't have to worry about extra damage to the Paladin's suspension system.

While you're at it, check the rest of your unit's Paladins and refit any that have the wrong shock absorbers.



Good by Any Measure

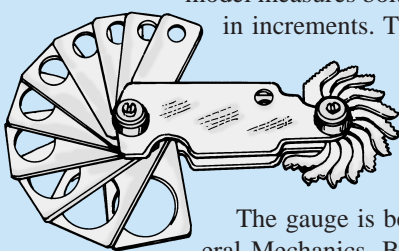
THERE'S A TOOL TO AVOID THESE TIGHT FITS!



Repairmen, if you have trouble identifying bolt sizes and thread pitches, the Army has the tool for you: a combination bolt sizer/thread pitch gauge.

The tool will not only help you pick the right wrench for each job, but also help you identify a fastener for a quick fix.

The pocket-sized tool comes in both standard and metric models. The standard model measures bolt diameters from 1/4 inch to one inch in 1/16-inch increments. The metric version starts at five millimeters and runs to 24 millimeters. Both models measure thread pitch in millimeters from 0.8 to 3. Both tools also tell you what wrench size you need. A guide on the back of both gauges lists the bolt grade symbols.



The gauge is being added to the following tool kits: General Mechanics, Bradley Turret Mechanics, and the Artillery and Turret Mechanics.

Order the standard gauge with NSN 5210-01-455-2936, and the metric with NSN 5210-01-455-2937. Each costs less than \$33.

Except in emergency situations, **never substitute bolts for the ones called for in your equipment TMs.** That's asking for trouble. The wrong bolt can snap and cause serious damage to your equipment and maybe you.

SHEDDING (L)IGHT ON PARTS RETRIEVAL

Mechanics, the magnetic retrieving tool, NSN 5120-00-545-4268, in the general mechanic's tool kit is handy for recovering small items that fall into hard-to-reach places.

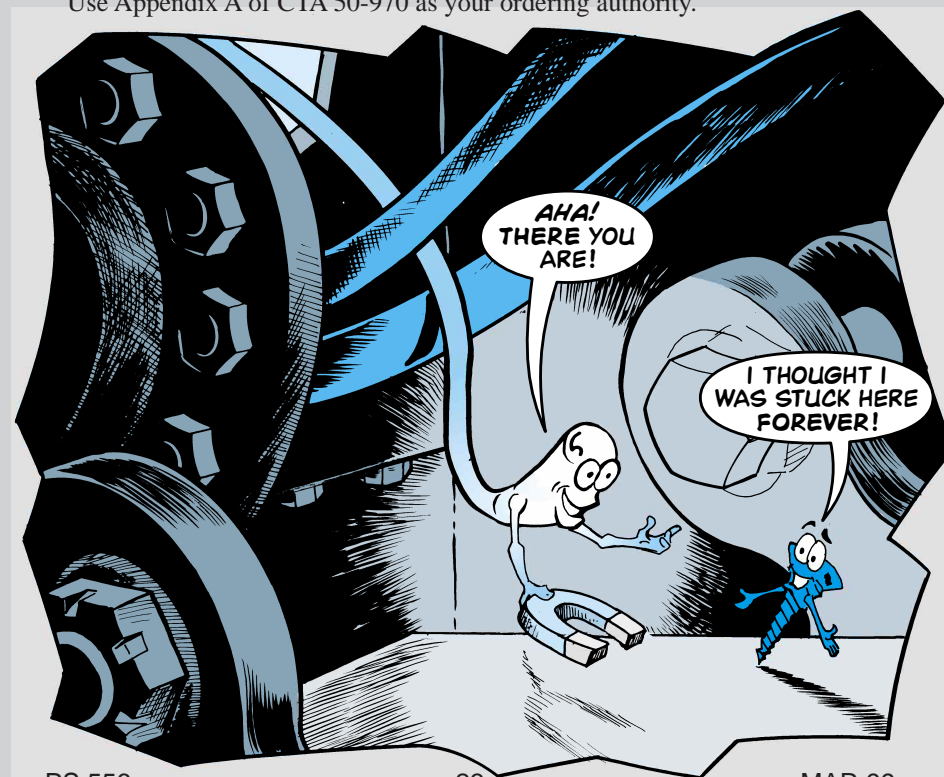
Unfortunately, the retrieving tool is too bulky to reach into **very** small holes and, even with a flashlight, you usually can't see what you're trying to retrieve.

Take heart. The new inspection and parts retrieval tool kit, NSN 5180-01-452-6076, is coming to your rescue.

The kit includes a 10-in flexible light shaft that passes through openings as small as 1/4 inch. A plastic extension wand extends the reach to 24 inches and doubles as a protective cover for the light shaft.

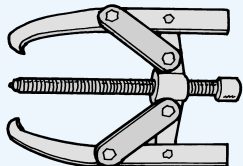
An attachable magnet lets you retrieve small parts while a clip-on magnetic mounting device allows hands-free use of the tool. A separate penlight, attachable reflector, and carrying case complete the kit.

Use Appendix A of CTA 50-970 as your ordering authority.

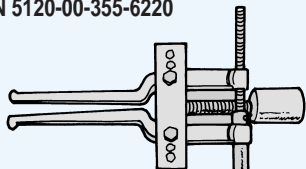


Parts for Your Puller Kit

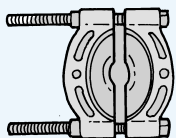
1 puller, 11-in reach, 12 1/2-in spread,
NSN 5120-00-288-7711



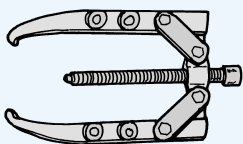
1 puller, 5 1/4-in reach, 1 1/2- to 7-in spread,
NSN 5120-00-355-6220



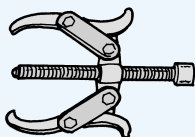
1 puller, 1- to 9-in spread,
NSN 5120-00-711-6753



1 puller, 8 3/4-in reach, 0- to 10-in spread,
NSN 5120-00-030-7942



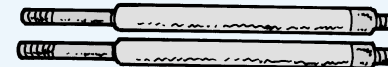
1 puller, 3 1/4-in reach,
NSN 5120-00-595-9304



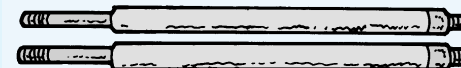
USE THESE
NSNs TO ORDER PARTS
FOR THE UNIVERSAL PULLER
KIT, NSN 5180-00-423-1596,
IN YOUR NO. 2 COMMON
SHOP SET.



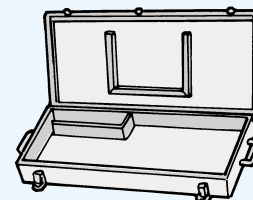
1 pair legs, push/pull, 16 1/2 inches,
NSN 5120-00-227-0635



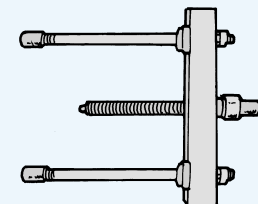
1 pair legs, push/pull, 22 1/2 inches,
NSN 5120-00-227-0636



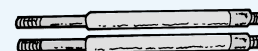
1 box, puller set,
NSN 5140-00-357-5463



1 push/pull, 3 1/2- to 12 3/4- in spread,
NSN 5120-00-633-5085



Includes:
1 pair legs, push/pull, 9 1/2 inches,
NSN 5120-00-227-0634

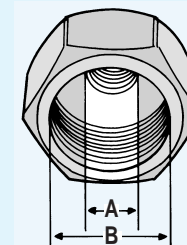


1 pair legs, push/pull, 4 1/2 inches,
NSN 5120-00-227-0633



2 stud puller attachments,
NSN 5120-00-355-6143

ADAPTERS			
QTY	Dimension A	Dimension B	NSN 5120-00-357-
1	5/8-18	5/8-18	5180
1	5/8-18	3/4-16	5181
1	5/8-18	7/8-14	5182
1	5/8-18	1-14	5183
1	5/8-18	1 1/8-12	5184
1	5/8-18	1 1/2-12	5186

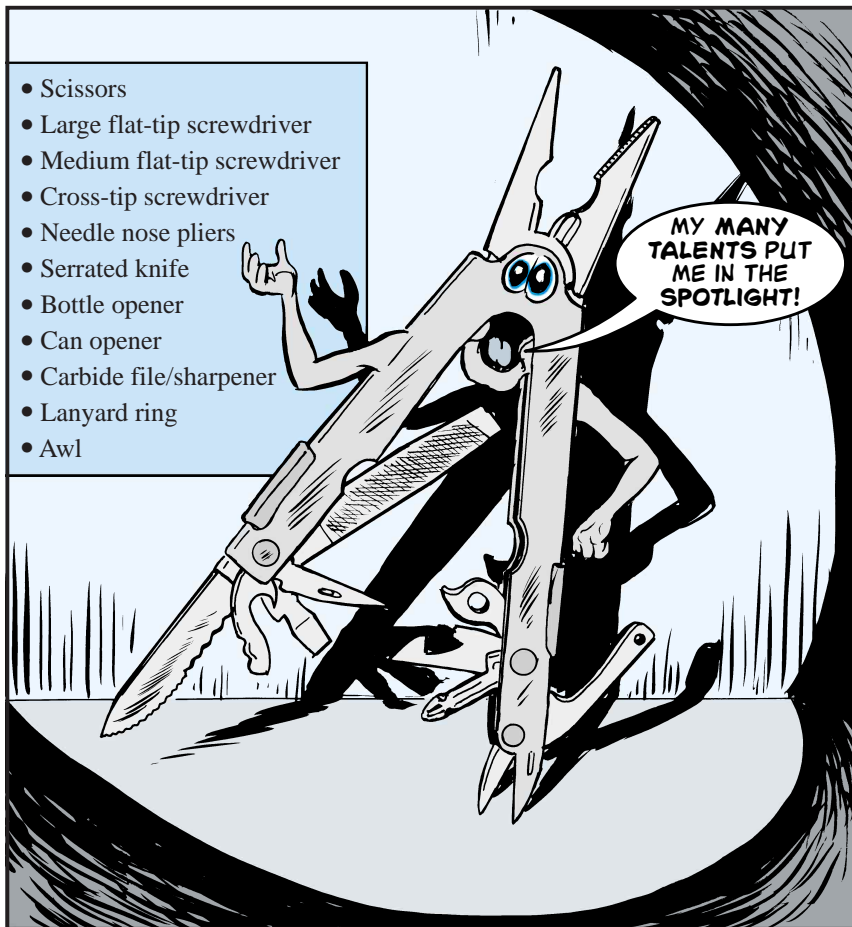


Pocket the Multipurpose Tool

Whether it's a pair of scissors to open your MRE or a knife to strip insulation from a piece of commo wire, every soldier knows that tools can be hard to come by in the field.

Now you can carry those tools—and many more—all in one pocket. Multipurpose tool, NSN 5110-01-451-4945, includes the following:


- Scissors
- Large flat-tip screwdriver
- Medium flat-tip screwdriver
- Cross-tip screwdriver
- Needle nose pliers
- Serrated knife
- Bottle opener
- Can opener
- Carbide file/sharpener
- Lanyard ring
- Awl



Carry the multipurpose tool in a pocket or, if authorized, wear it on your belt using the black sheath that comes with it. Appendix A of CTA 50-970 is your authority for ordering.

The Case of the Confused NBC NCO

THE "ADVENTURES OF THE SIX MAGUFFINS" HAD BEEN A CHALLENGING AND GRUELING CASE THAT HAD TAXED OUR CONSTITUTIONS TO THE UTMOST. SHERLOCK HOLMES AND I HAD DECIDED TO USE OUR FEE FROM THE CASE FOR A JOURNEY THROUGH AMERICA. WE HAD ARRIVED THE PREVIOUS WEEK IN A SMALL TOWN IN TEXAS.

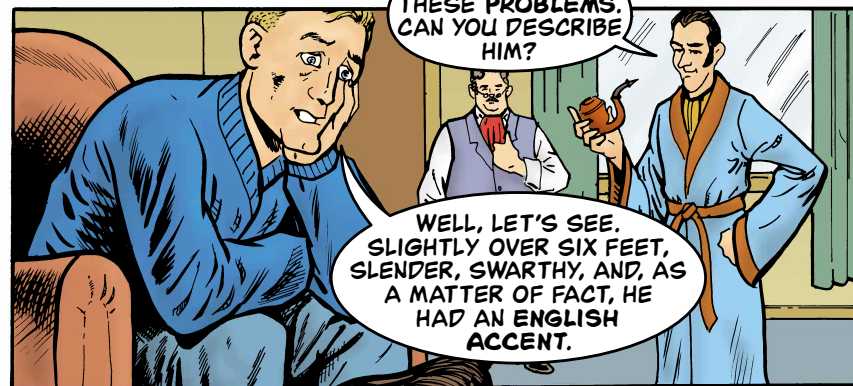
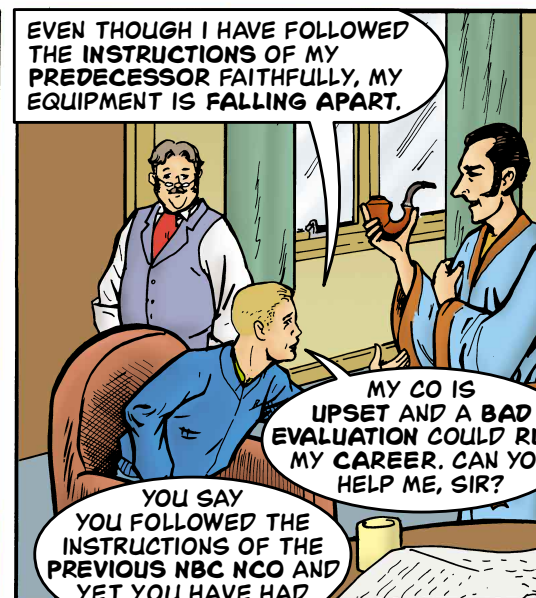
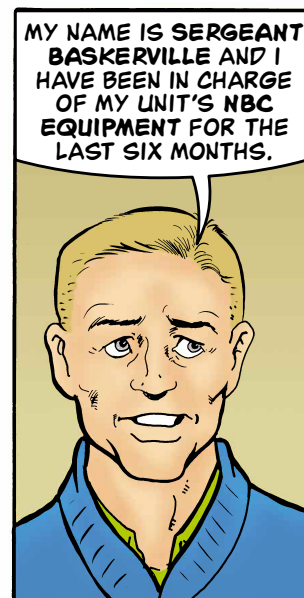
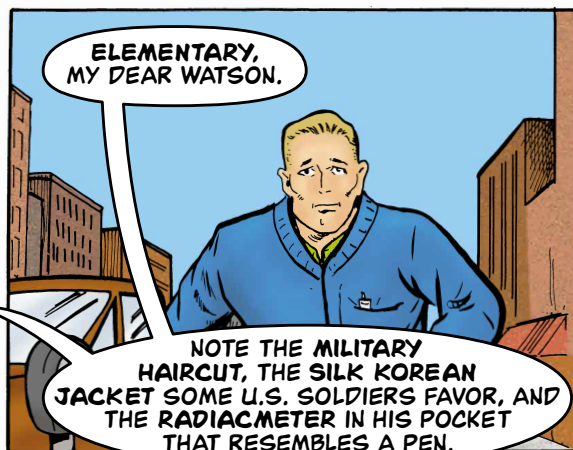
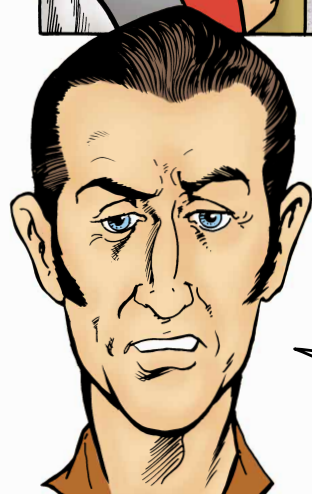
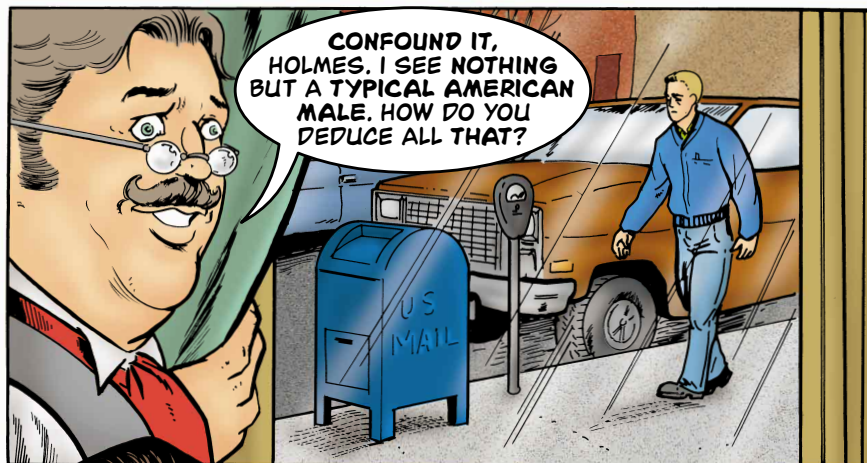


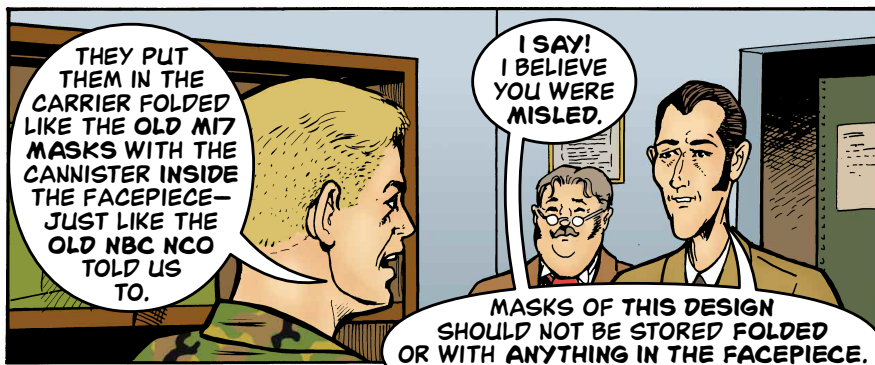
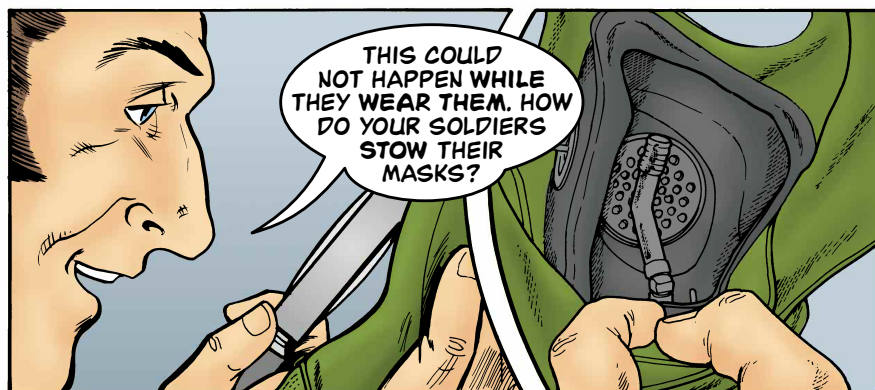
WATSON, I WILL NEVER UNDERSTAND THIS AMERICAN FONDNESS FOR COFFEE. WE HAVEN'T HAD A GOOD CUP OF TEA SINCE WE LEFT ENGLAND. AND I AM GROWING WEARY OF TRAVEL.

WHAT WE NEED IS A CASE TO STIR THE JUICES!

INDEED, I BELIEVE ONE MAY BE APPROACHING.

NOTE THIS SOLDIER WITH THE WORRIED EXPRESSION COMING TOWARD OUR DOOR. I BELIEVE HE HAS SOMETHING TO DO WITH WHAT THEY CALL NBC HERE.









FROM MY BRITISH ARMY DAYS I REMEMBER A COMIC MAGAZINE CALLED *KIT* THAT HAD ALL SORTS OF GOOD MAINTENANCE MATERIAL. MAYBE YOU AMERICANS HAVE SOMETHING SIMILAR.



THEY DO, WATSON! SERGEANT BASKERVILLE, I RECOMMEND THAT YOU *READ* THOSE PS MAGAZINES EACH MONTH INSTEAD OF LETTING THEM GATHER DUST!

THANK YOU, MISTER HOLMES. I WILL. I FEEL LIKE SUCH A FOOL TO HAVE BEEN MISLED SO COMPLETELY.



NOW I FEEL SURE I CAN PUT THIS NBC ROOM INTO TOP SHAPE. HOW CAN I EVER THANK YOU?

DO YOU KNOW WHERE I CAN GET A GOOD CUP OF TEA?

FINDING a Good Magazine

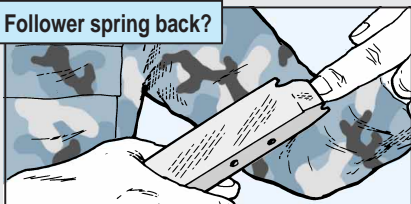
Don't let your subscription to magazine PM lapse. If the magazine can't feed ammo, your pistol won't shoot. Simple as that.

Take a good look at the magazine. If it's missing parts or is badly dented, replace it.

Here's how to make sure your magazine works, before you go to the firing range:

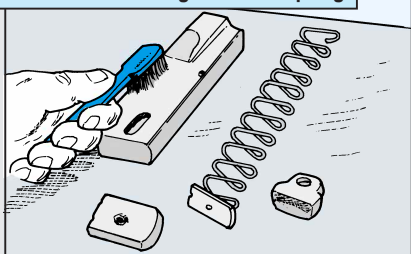
Depress the follower and release it. It should spring back smoothly.

Follower spring back?



If it doesn't, take the magazine apart. Clean the inside of the magazine and

Clean and lube magazine and spring



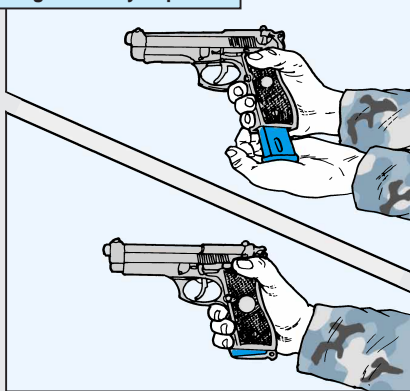
**TEST AND LUBE
NEW MAGAZINES, TOO.
DON'T WAIT UNTIL YOU GET
TO THE FIELD TO FIND OUT
YOU HAVE MAGAZINE
PROBLEMS.**

the follower with a cloth and CLP. Use a toothbrush on stubborn dirt. Wipe clean the spring and floorplate and give them a light coat of CLP.

Test the follower again. If it still doesn't snap back, get a new magazine.

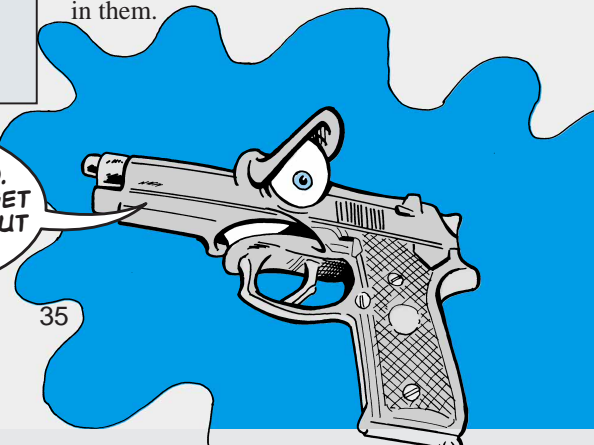
Stick the empty magazine in your M9 until you hear the catch click. Hold your pistol in firing position to make sure the magazine stays in place.

Magazine stay in pistol?



In the field, clean the magazine daily, right along with your pistol.

Do not store magazines with ammo in them.



KNOWING THE INS AND OUTS OF YOUR M2 MACHINE GUN CAN MAKE LIFE SO MUCH EASIER IN THE FIELD. FOR INSTANCE...

Carrying—Too many M2s take hard, damaging falls because some soldiers don't know the proper way to carry the gun. The M2 weighs more than 80 pounds, so the best way to carry it is with four hands.

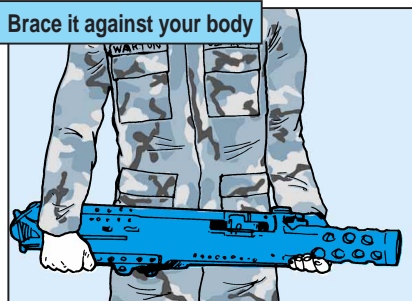
After the barrel is removed, have a buddy lock his hands under the barrel support, while you lock your hands under the receiver five inches from its end.

4-hand carry is best

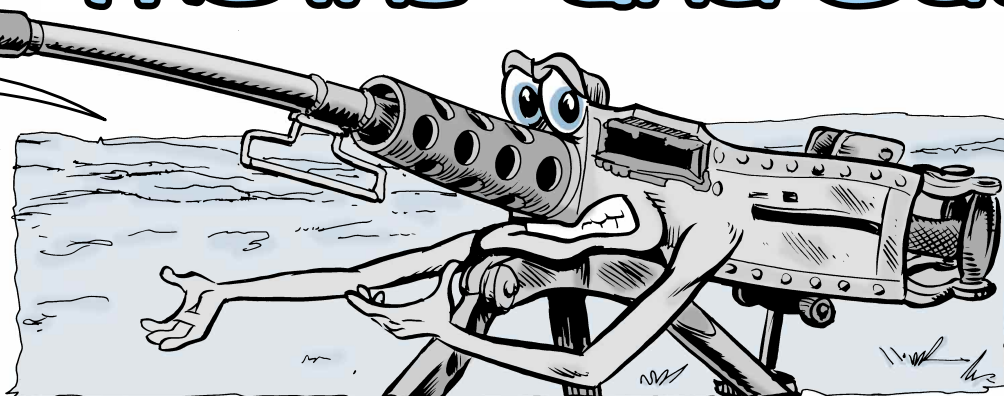


If you're alone, hold the barrel support with your left palm out and the

Brace it against your body



The Ins and Outs



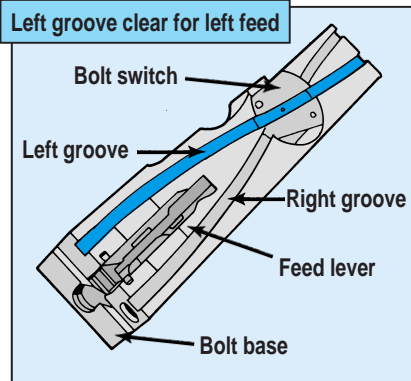
receiver with your right palm in. Brace the receiver against your legs for more support.

Never use the backplate handles for a carrying handle. The backplate can slip out and the receiver takes a tumble in the vicinity of your toes.

If you don't have a rack, the M2 should be stored flat so it can't fall.

Assembly—If you don't have the feed right, the feed lever lug and bolt switch hit each other during firing and each is damaged. Normally, you'll be feeding from the left. So, the bolt

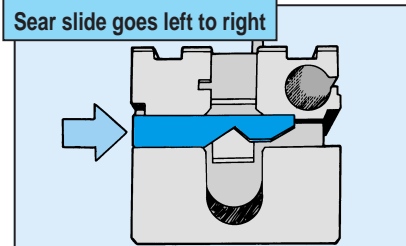
Left groove clear for left feed



switch should be installed so the bolt's left groove is unblocked. If you must feed from the right, reverse the bolt switch.

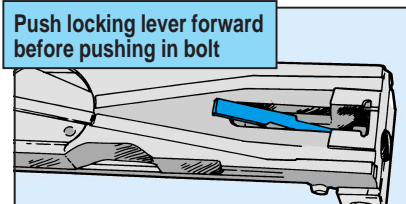
The sear slide **always** goes in from the left. Install it from the right and the M2 won't fire from the M63 mount.

Sear slide goes left to right



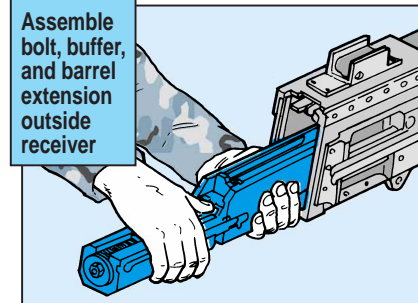
Push the cocking lever forward before pushing the bolt in the receiver. If you push the bolt in first, the bolt jams and you're in a jam with your armorer.

Push locking lever forward before pushing in bolt



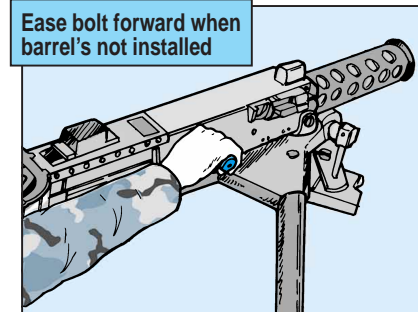
Put the bolt, buffer, and barrel extension together as one piece before putting them in the receiver. Then put in the driving spring rod and backplate. That saves wear and tear on your hands and the M2.

Assemble bolt, buffer, and barrel extension outside receiver



If you're going to take off the backplate, ease the bolt forward first. That takes pressure off the spring and prevents the drive rod from shooting out of the receiver and into you.

Ease bolt forward when barrel's not installed



Dry firing—Never dry fire, especially without the barrel installed. If the bolt slams forward, it ruins the rear threads of the barrel extension and the barrel can't be screwed in. Ease the bolt forward instead of dry firing.

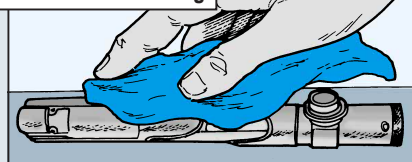
BACK TO BOLT BASICS

If the bolt in your M60 machine gun is bad, your firing will be, too—it's as simple as that. That's why you must pay attention to bolt basics.

Cleaning

A dirty bolt has trouble moving. It hangs up and won't extract or eject. So clean it with CLP as soon as possible after firing. The longer you wait, the harder carbon becomes and the harder it is to remove.

Clean bolt after firing



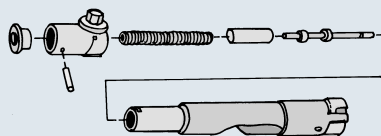
Once the bolt is clean, put it together right:

- The long end of the firing pin goes in first.
- The small hole in the guide fits on the short end of the firing pin.
- The spring goes in the guide.
- The cam actuator's roller end goes on the bolt first.

AWW, MAN!
THIS BOLT IS
STUCK!

BASICALLY,
YOU DIDN'T TAKE
CARE OF BOLT
BASICS!

Put it together like so:



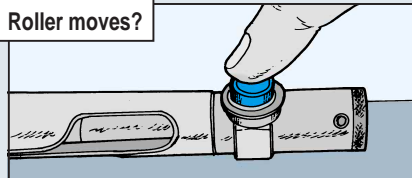
The bolt plug assembly should be screwed on so its hole lines up with the hole in the bolt. The plug's headless straight pin should be inserted so that the cam actuator moves freely.

PMCS

Bolt plug pin—Give the bolt a shake. If the plug pin falls out, the bolt plug's bad. Get it replaced.

Cam actuator roller—Does it move? If it's frozen, your M60 will

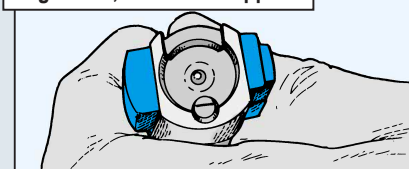
Roller moves?



fire slow and the cover's feed cam will wear out fast.

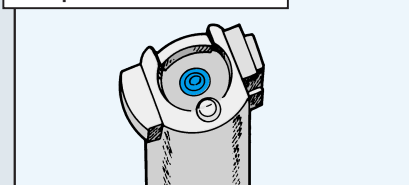
Locking lugs—Worn, burred, cracked, chipped? Burred lugs hang up the bolt. Worn or chipped lugs break off and can ruin the barrel socket.

Lugs worn, burred or chipped?



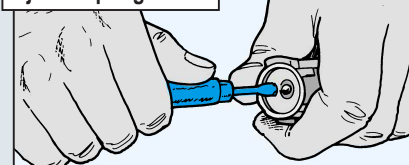
Bolt face—Firing pin hole out-of-round or pitted? The firing pin will have trouble doing its job.

Hole pitted or out-of-round?



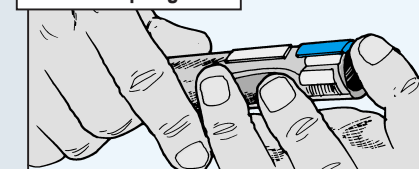
Ejector—Use something with a blunt point to press in the ejector. It should not depress easily, but it should snap back. If the ejector doesn't have much spring, your armorer needs to replace its spring.

Ejector spring back?



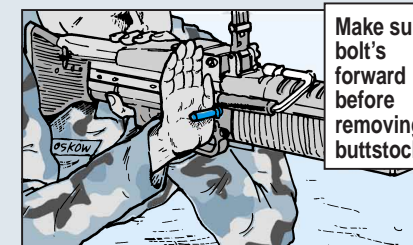
Extractor—Use your thumb to press up and in on the extractor. It should not depress easily, but should spring back smoothly. If it doesn't, it needs a new spring.

Extractor spring back



Safety

Be very sure the bolt is forward before you remove the grip assembly or buttstock. If the bolt is locked to the rear, the op rod guide comes flying out when the buttstock comes off.

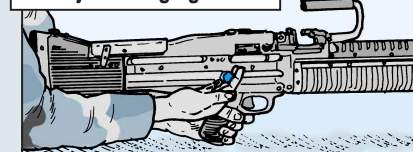


Make sure
bolt's
forward
before
removing
buttstock

When the bolt is to the rear, keep your fingers away from the front of the bolt, like when you're trying to push out a stuck round. The bolt can spring forward and smash your fingers. Follow the procedure on stuck cartridges in work package 0012-00-01 in TM 9-1005-224-10.

If you can't pull the bolt to the rear, do not keep jerking on the charging handle. That'll damage the bolt and the receiver. Make sure the safety is not set. If that's not the problem, tell your armorer.

Don't jerk charging handle



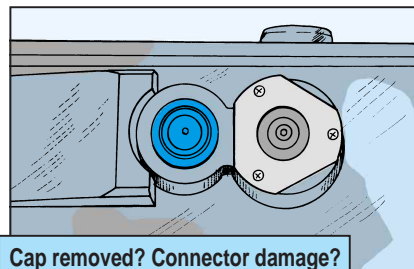
TOW PM THE WAY TO GO



Loading

The TOW launcher can run into problems during loading. If the missiles aren't placed just right, the electrical and umbilical connectors are damaged when the missiles are armed.

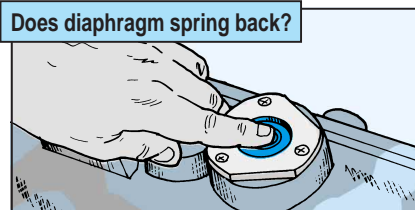
Before you load a missile, make sure that the black protective cap has been



removed from its connector and the connector's not damaged. The cap or a bum connector can damage the launcher connector.

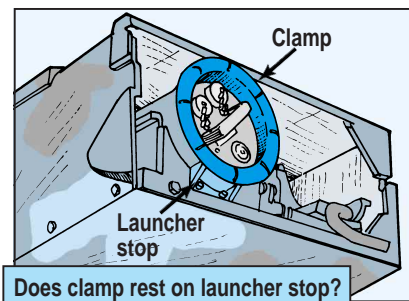
Also look in the launcher to see if the umbilical connectors are up. If they're not, hit the ARM-SAFE-RESET switch to raise them.

If you're using dummies, check that the holdback pin has been removed.

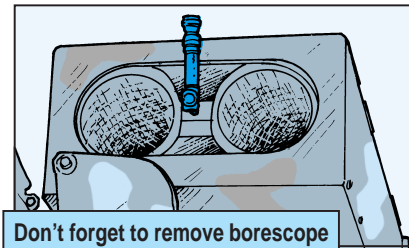


Push down on the round's rubber diaphragm. If it doesn't spring back, the pin's been removed and the round's OK. If it does pop up, get another dummy. That one will damage the launcher and missile guidance set (MGS).

Push the missile as far forward in the launcher as it will go. Make sure the missile's rear clamp rests on the launcher missile stop before you lock in the missile.

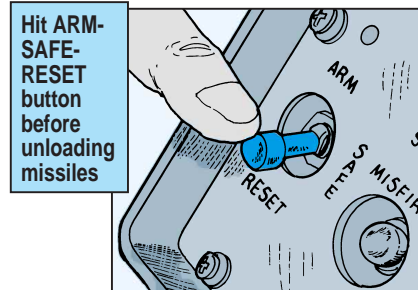


After you've finished boresighting, remember to remove the boresight telescope. If you forget, you can forget the telescope. It will be destroyed when the launcher's lowered. The launcher will be damaged, too.



When it's time to unload the missiles, make sure you first move the ARM-SAFE-RESET switch to RESET then to SAFE and wait 10 seconds to let the launcher connectors retract from

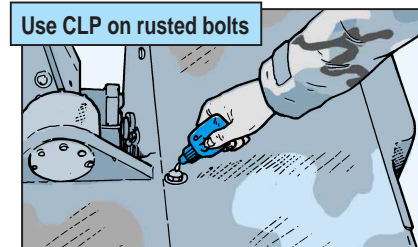
the missiles. If you jerk on the missile while it's still armed, the connectors and arming control unit are damaged.



MILES

Be careful when mounting MILES. Use only the bolts that are in the launcher, which are 9/16 inch long coarse-thread bolts. Longer bolts can damage the launcher.

If a bolt is rusted in place, don't force it. That just snaps it off. Then you can't mount MILES. Try putting CLP on the rusted bolt. Let CLP do its work for a few minutes and then try again. If the bolt still won't budge, tell your repairman.



Prevent rusted bolts by putting CLP on bolt threads before you screw them in.

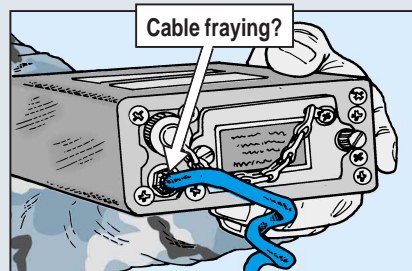
Easy does it when you screw in the bolts. Forcing a bolt can cross thread it. If the bolt's not going in easy, unscrew it and try again.

Sensitive PM

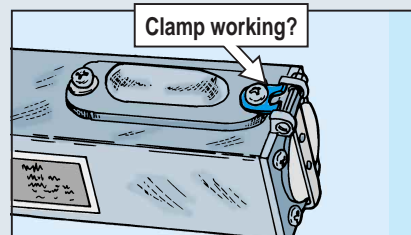


If your AN/VDR-2 radiac set is to be sensitive to radiation threats, it needs a bit of sensitive PM from you.

Before you go to the field, eyeball the cable from the probe to the radiac meter for fraying, especially at the connectors. If the cable's in bad shape, the AN/VDR-2 will flunk the self-test. TMDE needs to check out or replace the cable.



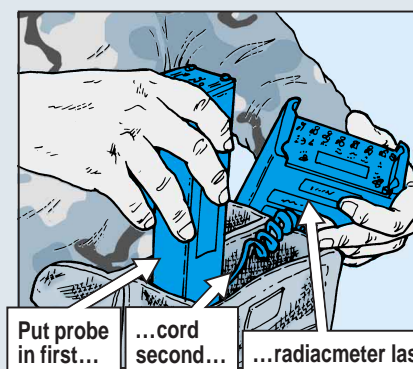
Make sure the clamp will hold the beta shield open. If it doesn't, you'll have trouble scanning. TMDE can replace the clamp with an improved clamp that solves the problem.



If you don't pack the AN/VDR-2 right, you damage the probe cord or the batteries. Packing goes like this:

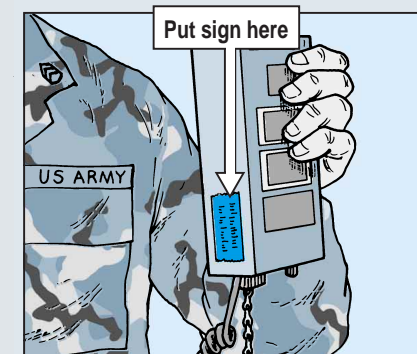
Put the probe in first with its high range assembly to the center and its sensing end up. Pass the cord through

the opening in the compartment flaps and store it in the bottom of the case on the right. Put the radiac meter on top of the cord.

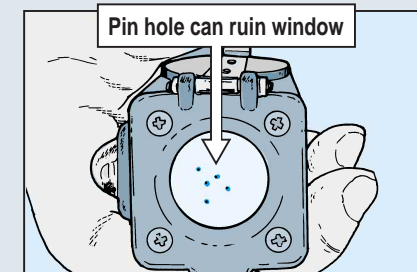


In the field, remember that the radiac meter will be zapped if you connect or disconnect the probe with the power on. A good reminder is to tape a small sign next to the probe cable connec-

tion that says **TURN OFF POWER BEFORE PLUGGING IN OR UNPLUGGING PROBE.**



Keep the beta shield closed as much as possible to protect the delicate probe window. When you scan, be careful not to brush the probe against anything. Even a pin prick in the window can ruin the probe.



If the window becomes dirty, clean it carefully with a dry cotton swab.

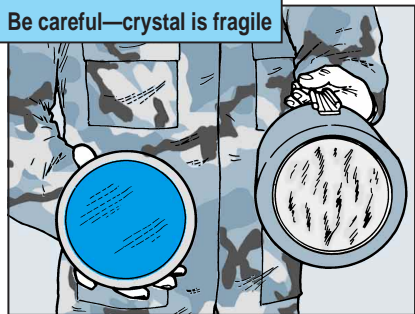
NBC NCOs, remember the probe and radiac meter have been calibrated together. If either malfunctions, don't try to fix the problem by swapping components with another AN/VDR-2. That won't work. Turn in the entire radiac set to TMDE for repair.

Glowing with PM

The new AN/PDR-77 radiac set is the most sensitive radiation device the Army has ever fielded. But it will be about as sensitive as a drill sergeant if you don't remember a few things about handling and PM:

- The \$600 crystal on the bottom of the x-ray probe is fragile. Even setting the probe down hard can break it, so **be careful!** Handle the probe gently and keep it in its case when you're not probing.

Be careful—crystal is fragile

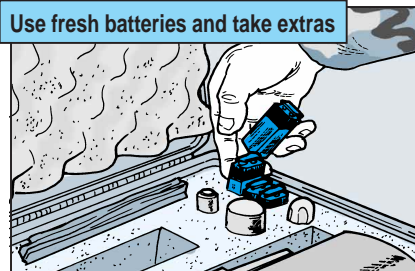


- Use PEAK ALIGN only for extreme cold—below 4°F. That assures the probe's accuracy.

Turn off the AN/PDR-77 before switching probes. If you forget, you could short out the system when you install the new probe. Plus, the radiac set will think you're still detecting in the previous mode.

- Use new 9-volt batteries and take extras to the field. Put three in the meter, two in the x-ray probe, and five extras in the storage compartment. The radiac set can eat up batteries fast if you're doing much detecting.

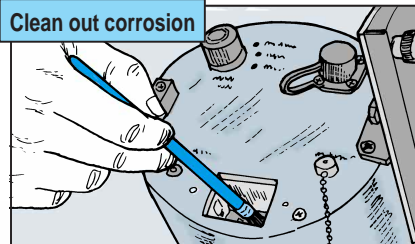
Use fresh batteries and take extras



Remember to remove the batteries when you finish your mission. Left in, the batteries can leak and damage the probe or meter.

Before a mission, check both battery compartments for corrosion that can block power. Wipe out any corrosion with a pencil eraser and a clean cloth.

Clean out corrosion



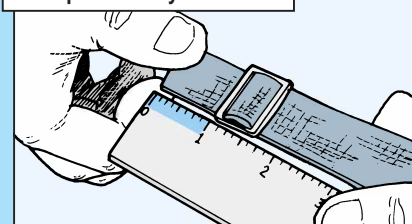
Put This On



Speed is vital when it comes to putting on your M40 or M42 mask. Being just a few seconds slow could be fatal. Here are some ways to make masking quicker:

- ➔ When you take off your mask, loosen the cheek straps so that their metal ends stick out one inch past the buckles. That gives the straps just the

Pull tip 1 inch beyond buckle



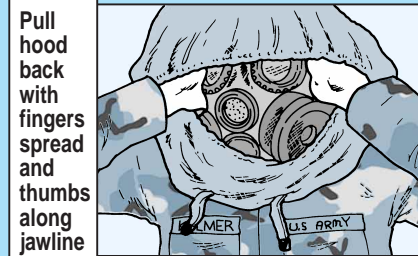
right looseness. If the straps are left tighter, you have trouble getting the harness over your head. If they're looser, you lose time groping for the strap ends when you put on the mask, especially when you have gloves on.

- ➔ After you seal and clear your mask, tilt your head slightly forward and put your hands in a praying posture inside the hood. With both hands' fingers spread, pull the hood over your head with the thumbs following the lines of the jaw. This stretches the hood's elastic band so it doesn't hang up on the canister.

Place hands together, palm-to-palm



Pull hood back with fingers spread and thumbs along jawline



- ➔ Stow your mask upright in the carrier with the eyelenses facing away from the body. Then you can pull the mask out of the carrier and put it on without having to turn it over.

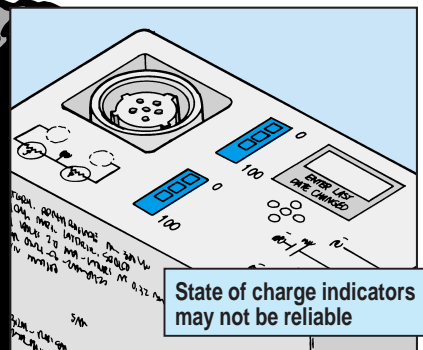
Whoa to Battery Woes!

Some of you have found that the rechargeable BB-390A/U battery, NSN 6140-01-419-8187, is as hard to handle as an ornery mule.

Here are a few things that might be bucking you off and a few ways to tighten your grip on the battery reins.

The Unbelievable SOC

In early BA-390s, the state of charge (SOC) indicator might not be reliable.

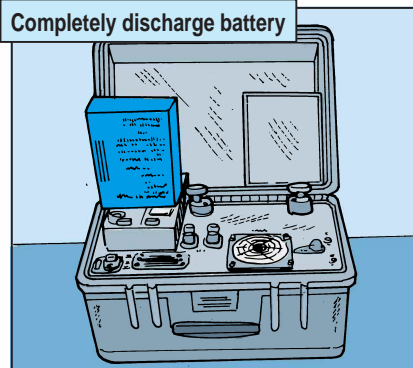


This is especially true with those batteries serial numbered 1 through 9999.

A battery with a faulty SOC indicator might be fully charged while the indicator flickers or only shows one, two or three segments lighted.

If you suspect your battery has a faulty SOC, do this:

First, completely discharge the battery in your equipment or in a PP-8448 discharge unit, NSN 6130-01-430-



3108. Then recharge. A depleted battery should fully charge in about two hours.

If the SOC indicator is flickering or has less than four segments lit, use your voltmeter to check the battery voltage at each 12-volt section, pins 1-4 and 2-5. If you get 12.75 volts or more, your battery is charged and the SOC indicator is faulty.

If the battery is within the 1-9999 serial number, contact CECOM at DSN 992-4948 or (732) 532-4948. Or e-mail them at:

brockeld@mail1.monmouth.army.mil

They will give you return and replacement instructions.

If the battery is above the 9999 serial number and your mission demands it, continue to use that battery, but note on the battery that the SOC indicator is bad. Alert other users in your unit to judge the battery on its actual life.

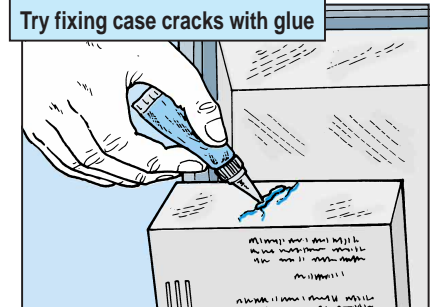
BB-390s will self-discharge on the shelf about 1 percent a day, so we recommend you keep them as freshly charged as possible prior to issue.

Store rechargeables charged and then charge them at least once a year to keep them fresh.

The Case Against the Case

The good news is that future BB-390s will have a tougher case. The bad news is that the case now is weak.

If the case cracks or the top pops off, you can fix both with commercial epoxy and duct tape. If not, turn the battery in for disposal.



If a top pops loose after a few missions and there is no other damage to the battery, call or e-mail CECOM for replacement.

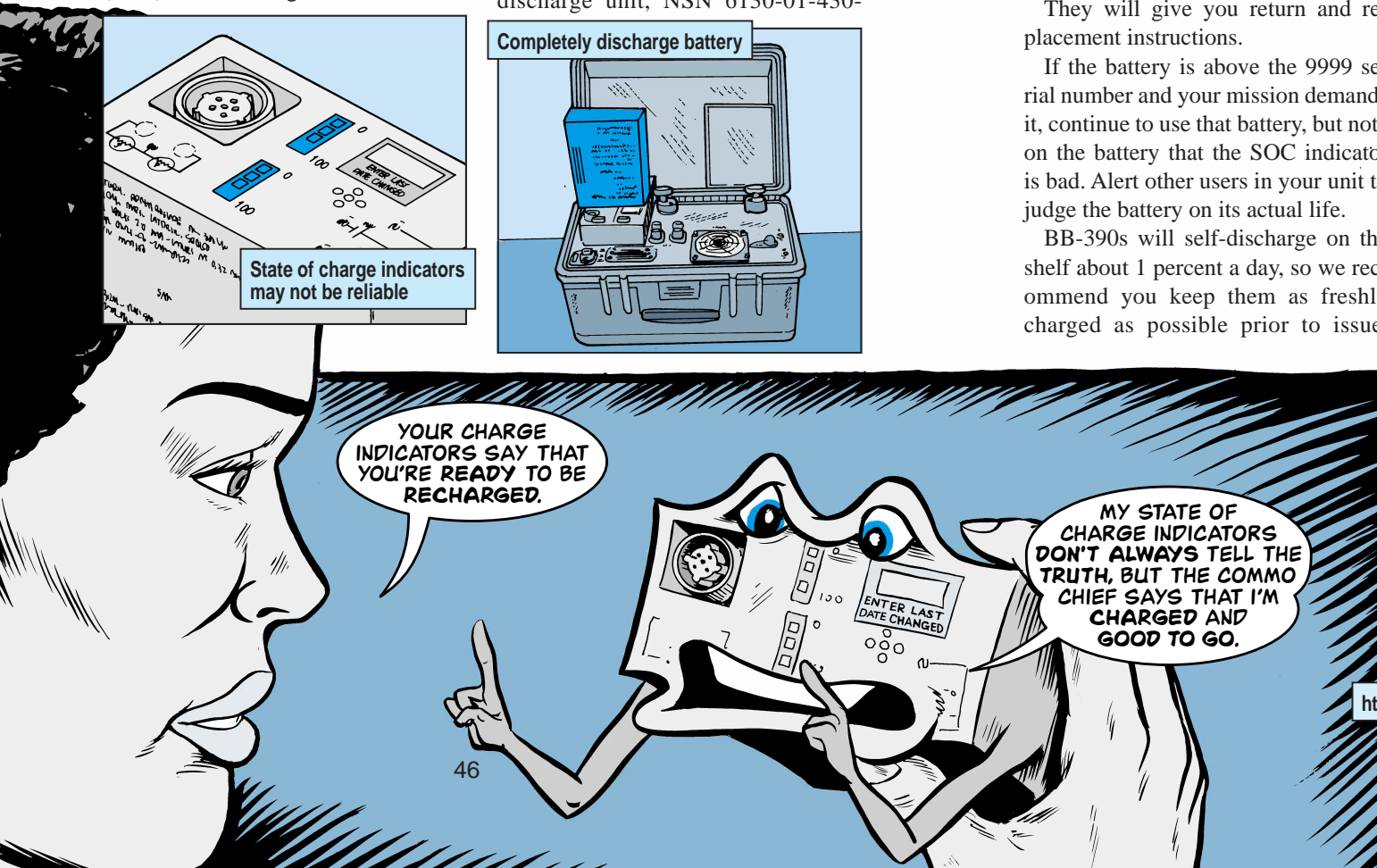
If the connector screws loosen, hand tighten them. Make it a habit to check the screws.

Prevention is **always** the best solution to case problems. When you're packing it for transport or a jump, wrap the battery with clothing or other cushioning items. Or stick it in a heavy-duty, cushioned plastic bag. Some folks have found that a wrapped battery inside a milk crate travels well.

The CECOM battery web site is found at:

<http://www.monmouth.army.mil/cecom/lrc/lrc.html>

Just click on *Battery Support*.

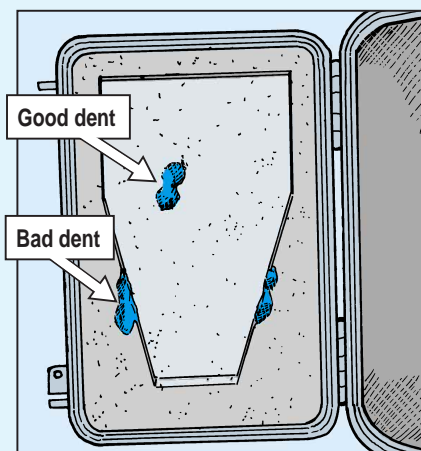


The Lid Will Tell You

Your AN/PVS-7B night vision goggles must be packed and stored correctly. If not, you'll crack or break the harness of the headmount assembly.

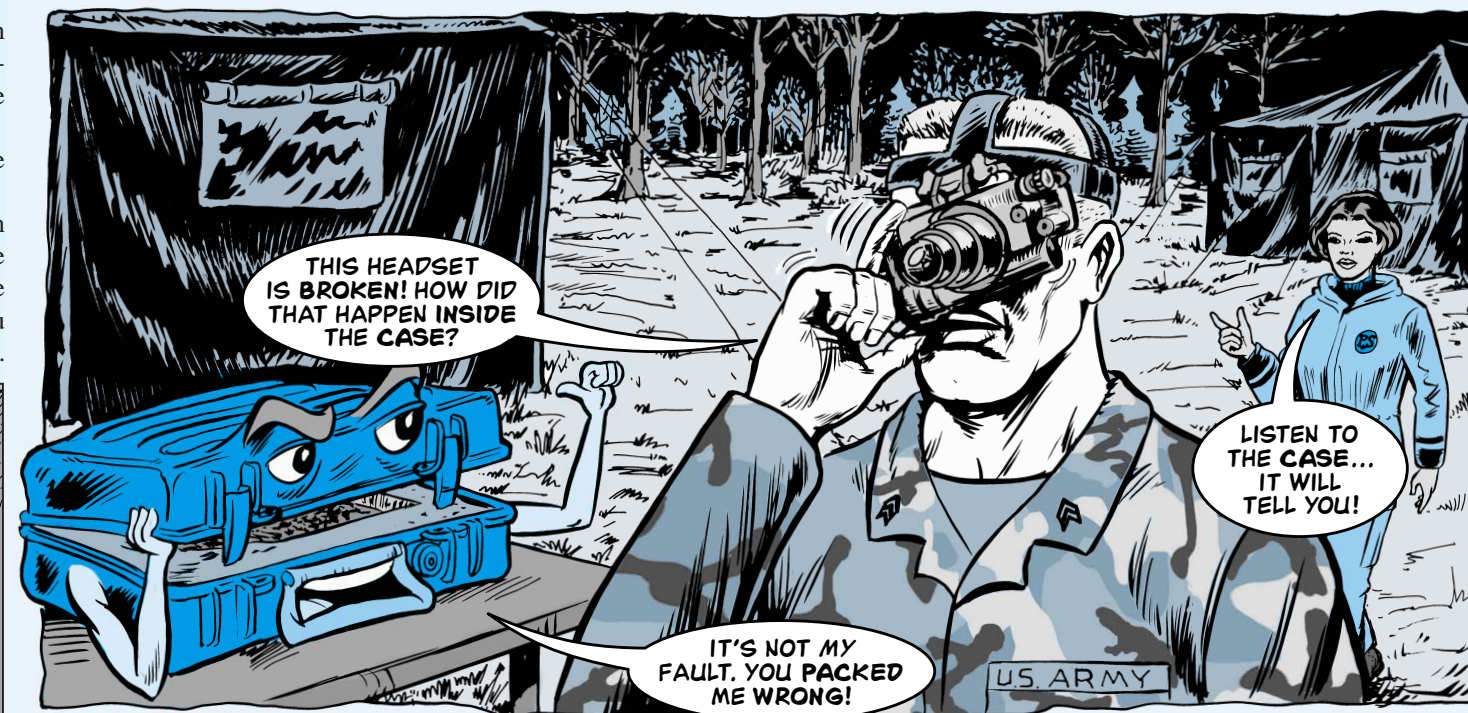
So check the foam cushioning in the lid of the shipping and storage case.

If the cushioning has a slight dent in the middle of the cutout area, you're OK. That dent is caused by the headmount socket assembly. It tells you that you're packing the assembly right.



If the cushioning has other dents, especially in the non-cutout area, you're packing it wrong. The carrying case won't fit properly in the shipping and storage case and eventually the headmount will break.

Before you pack, make sure the goggle assembly is free of dirt, dust and moisture. If it's not, clean it with a clean, lint-free cloth. Clean the optical surfaces, including the sacrificial window assembly and the eyecups with



clean water and lens paper. Don't use water on the demist shields. Water ruins them. Use only dry lens paper to clean them.

Don't forget to clean the carrying case. Shake out the case and knock it on your leg to loosen and remove dirt and dust. Wipe the case, inside and out, with a dry lint-free cloth.

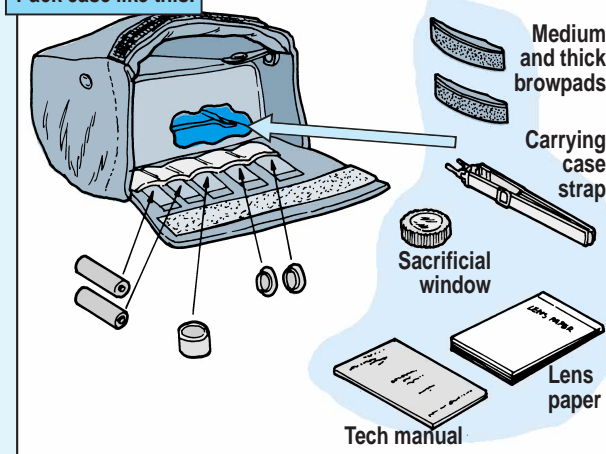
For stubborn dirt, dampen the lint-free cloth with clean water and, if needed, a mild detergent. Just make sure the case is thoroughly dry before you pack the goggle assembly. Let the case air dry. Direct sunlight will fade and shrink it.

Once you have a clean assembly and carrying case, pack the case like this:

1. Put the demist shields and batteries into their labeled pockets.

2. Unsnap and remove the shallow pocket inside the carrying case. This gives you easier access to the back pocket.

Pack case like this:

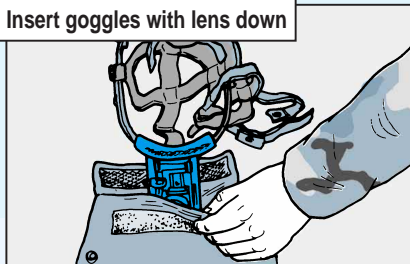


3. Put the sacrificial window in the bottom left or bottom right corner of the carrying case back pocket. This window is easily broken and tucking it here keeps it out of harm's way.

4. Put the brow pads, carrying case strap, lens paper and manual in the back pocket.

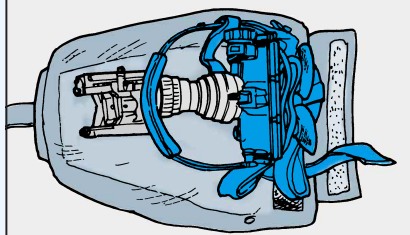
5. Snap the shallow pocket back in place and insert the goggles with the objective lens facing down.

Insert goggles with lens down



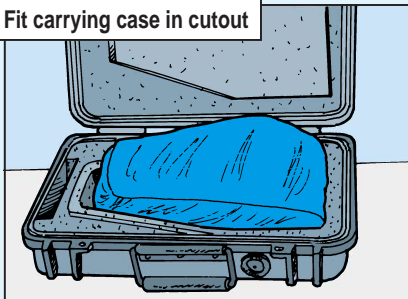
6. Now put the headmount assembly into the deep pocket of the case with the socket assembly facing down.

Put headmount assembly in deep pocket

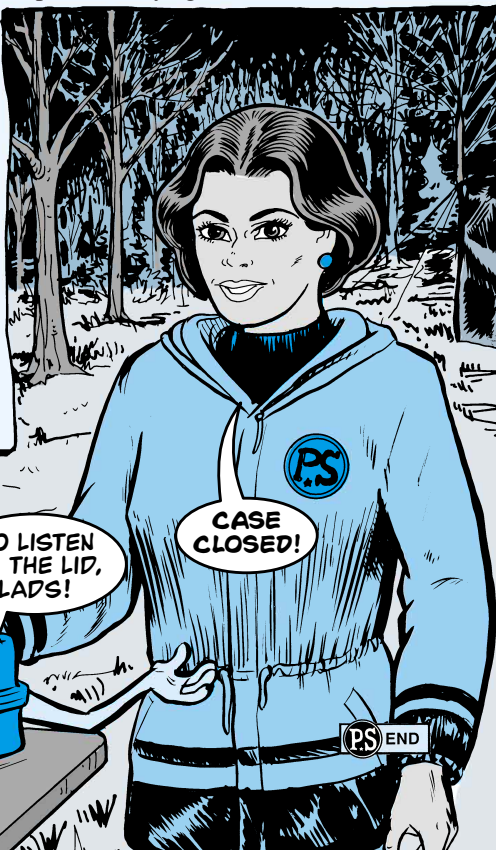


7. Fit the carrying case into the cutout area of the shipping and storage case.

Fit carrying case in cutout



8. Now close the lid of the shipping and storage case. It should close easily with just slight pressure needed to latch it. Don't put a knee to it or force it in any way! If it takes that much effort to latch the case, you've packed wrong. Unpack and try again.



TAMMS...

KEEPING TRACK OF EQUIPMENT



The Army Maintenance Management System (TAMMS) equipment data base needs to be fed.

You feed it with DA Form 2408-9, Equipment Control Record. This record keeps up with equipment ownership, location, usage, transfers, gains, losses, overhauls and registration.

You feed it because:

Para 5-3 of AR 710-3 tells you to. The 2408-9 is the prime source of information in support of the TAMMS data base. TAMMS provides output summaries and reports in support of equipment age, ownership, asset positions, usage, overhaul and safety recall requirements.

These reports affect unit budgets, equipment procurement and operating tempo (OPTEMPO) determinations.

So make sure your unit's equipment data base is current and all items that need to be registered are registered and match LOGSA's files.

Follow the instructions in DA Pam 738-750 completely. Incomplete forms will be returned.

Once they match, make adjustments to your equipment logbook and to your ULLS.

Then, keep your local data base current and keep feeding those hardcopy 2408-9s to the Logistics Support Activity (LOGSA) data base.

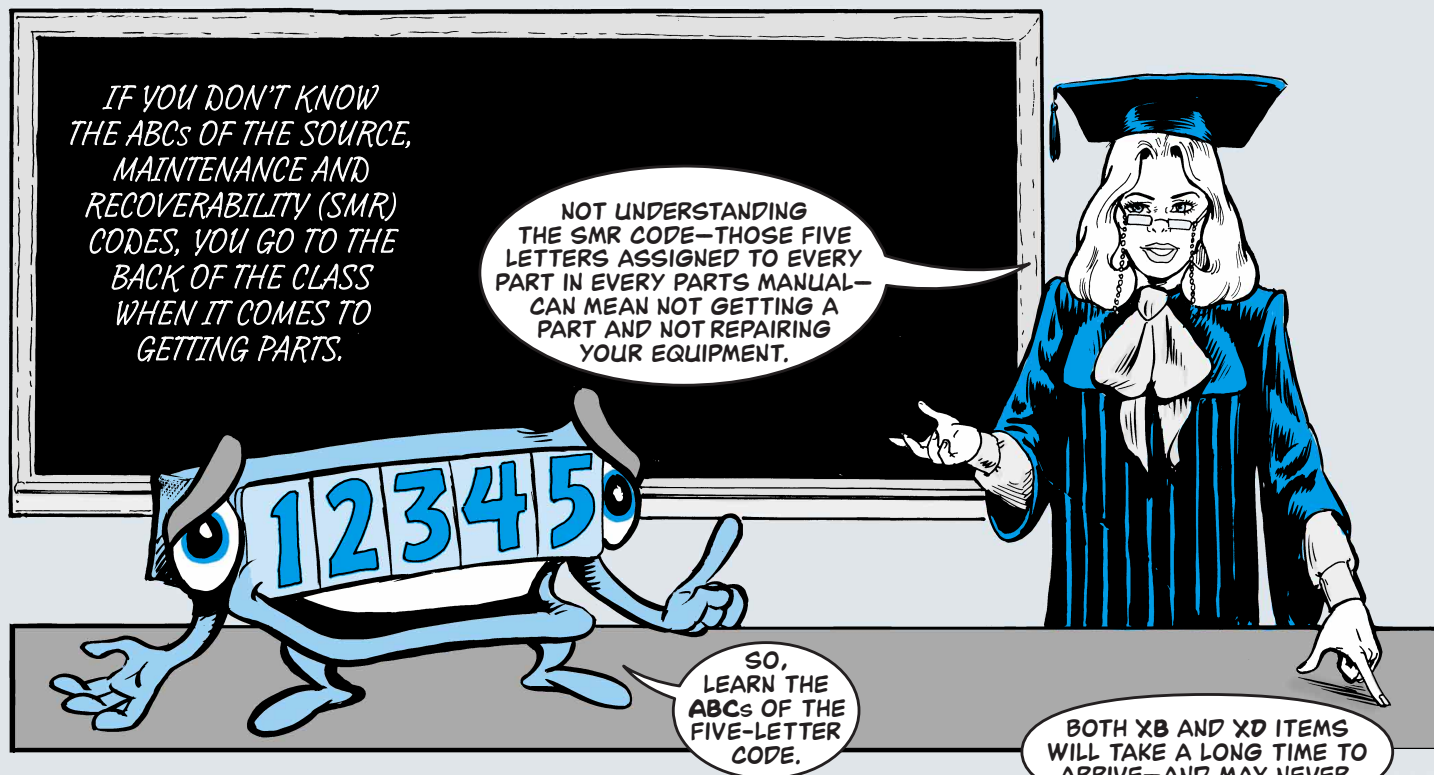


USAMC Logistics Support Activity
ATTN: AMXLS-RRS
Redstone Arsenal, AL 35898-7466

DSN 645-9148/9697/9715
(256) 955-9148/9697/9715

tammsmgr@logsa.army.mil

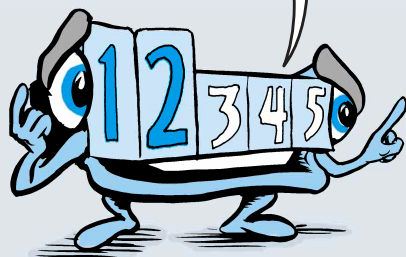
THE ABCS OF SMR



A: Source Codes

The first two positions of an SMR code are the source, which tells you how you get a part. It also explains why a part sometimes doesn't have an NSN.

MOST SOURCE CODES ARE SIMPLE, BUT NOT THE X's!



The SMRs beginning with **X** require special treatment.

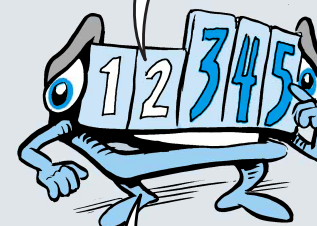
XA means order the next higher assembly.

XB tells you to try to get the part from salvage before ordering. If you can't, order the part by using advice code 2A in card columns 65-66 of a DD Form 1348-6.

XD means the item's not stocked, but the item manager will try to find you one. Order it the same way as XB parts.

The fourth letter shows if the item is repairable and the lowest level of maintenance that can do the complete repair.

THE THIRD AND FOURTH POSITIONS ARE FOR MAINTENANCE CODES.



THE FIFTH POSITION COVERS REPAIRABILITY AND DISPOSAL.

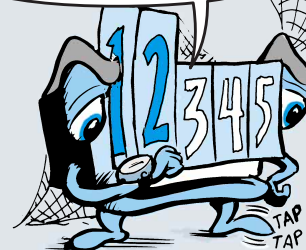
C: Recoverability Codes

The fifth and last position tells if the item is repairable and who disposes of the item if it can't be repaired. Z means the item's not repairable and the level that replaces it also disposes of it.

O means you can repair it and dispose of it. F, H, D, K, or L means the item must be repaired or disposed of at a higher level.

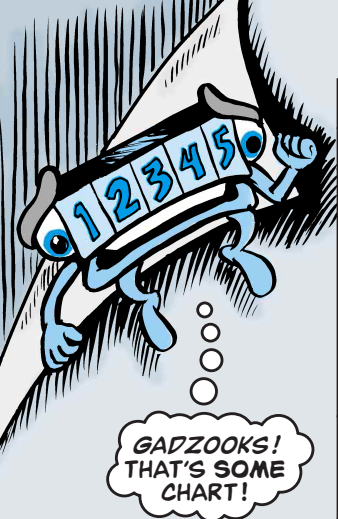
A recoverability code of A means the item requires special handling or disposal and you will probably need outside help. The equipment's TMs, the Safety Office, and the Logistics Assistance Office are good places to look for info on special handling requirements.

BOTH XB AND XD ITEMS WILL TAKE A LONG TIME TO ARRIVE—AND MAY NEVER.



B: Maintenance Codes

The SMR's third and fourth positions give maintenance info. The third letter tells what level of maintenance can replace the item—C or O means you can replace it.



GADZOOKS!
THAT'S SOME
CHART!



SOURCE (Means of ordering item)			MAINTENANCE				RECOVERABILITY	
1st position	2nd position		3rd position		4th position		5th position	
P Stocked item—regular supply	A	Request item using NSN. Maintenance level indicated in third position of SMR code is authorized for this item.	USE: Lowest level authorized to remove or replace		REPAIR: Lowest level with capability to perform complete repair		DISPOSITION: When unserviceable or uneconomically repairable, condemn and dispose	
	B							
	C		C	O	Unit/AVUM level.	Z	Nonrepairable.	
	D							
	E			O	DS/AVIM level.	O	Repairable item. Dispose of at unit / AVUM level.	
	F							
	K Stocked in kit		D	Item cannot be ordered individually—part of a kit. Maintenance level indicated in third position of SMR code is authorized for this item.	O	Unit or aviation unit level can remove, replace and use item.	F	GS level.
F								
B								
M Item not stocked. Fabricate or manufacture	O	Made at unit /AVUM level	F	Direct support or aviation intermediate level (AVIM) can remove, replace and use item.	L	Specialized repair activity level.	H	Repairable item. Dispose of at GS level.
	F	Made at DS/AVIM level						
	H	Made at GS level						
	L	Made at Specialized Repair Activity (SRA) level						
	D	Made at depot level						
A Item not stocked. Assemble	O	Assembled at unit /AVUM level	H	General support level can remove, replace and use item.	D	Depot level.	D	Repairable item. Dispose of at depot level.
	F	Assembled at DS/AVIM level						
	H	Assembled at GS level						
	L	Assembled at SRA level						
	D	Assembled at depot level						
X Item not stocked. Special info needed	A	Order next higher assembly	L	Specialized repair activity can remove, replace and use item.	B	No repair is authorized. However, item may be reconditioned at the user level.	A	Item requires special handling or condemnation procedures (precious metal content, hazardous, etc.)
	B	If not available from salvage, order using CAGE and PN						
	C	Order using drawing/diagram/instruction sheet ID'd by PN						
	D	Not stocked. If no NSN, order by CAGE and PN						

MAKE A COPY OF
THIS CHART AND KEEP IT
HANDY TO ANSWER FUTURE
SMR QUESTIONS.



THANKS
FOR THE ABC
REFRESHER
COURSE,
CONNIE!

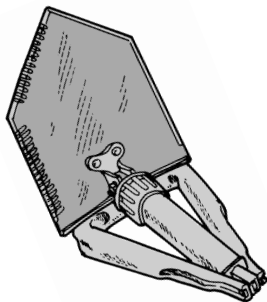
Can You Dig It?

Your entrenching tool can dig you out of some tight spots—if you treat it right. That means using it for cutting and digging only. Never use it as a hammer or as a pry bar.

To keep it on the job, give it its share of PM:

◆ Clean it. Dirt, rust and grime will dull the blade, and can make the tool hard to fold.

Tool fold easily?

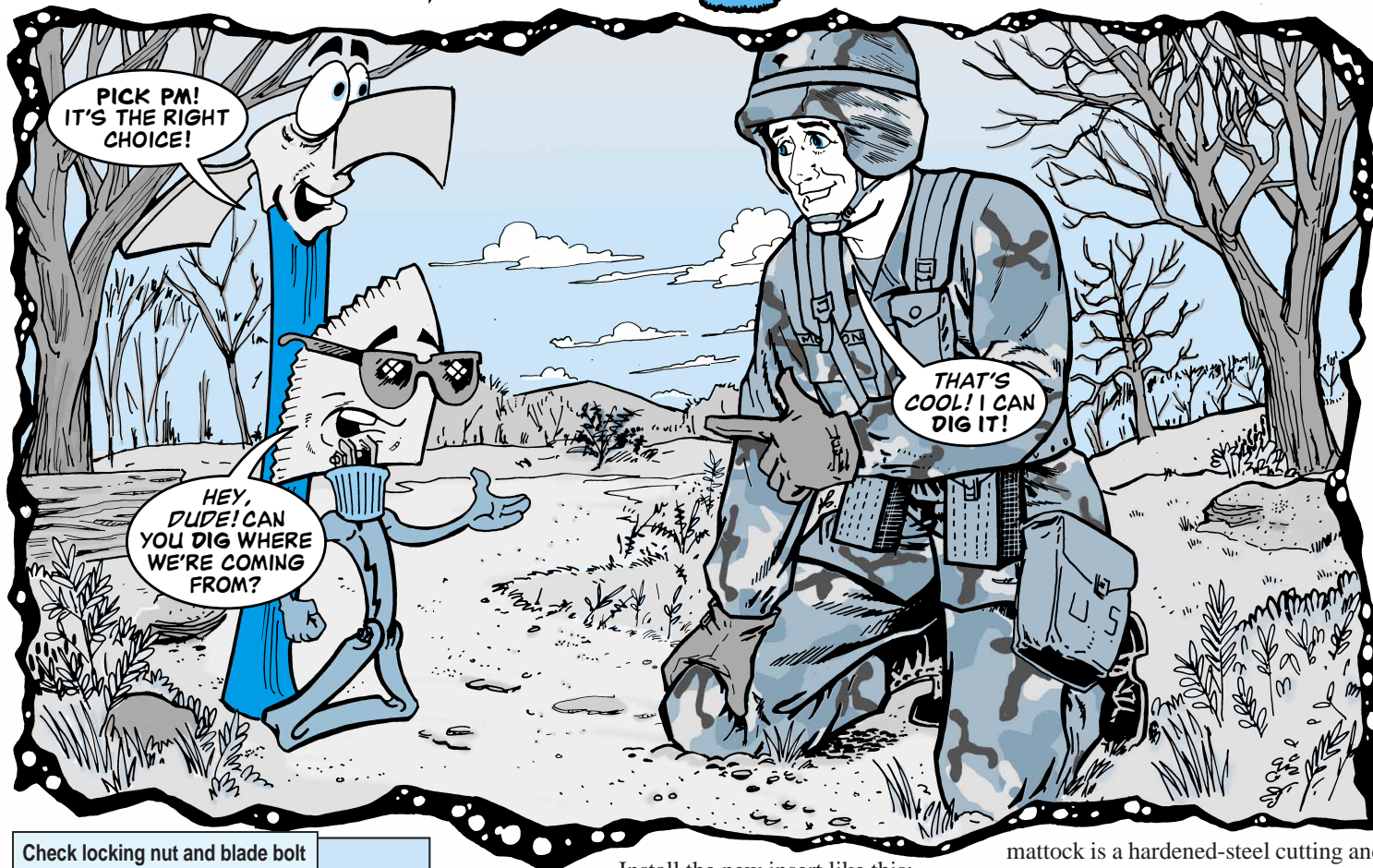


◆ Keep it lubed. Use the same oil you use on your weapon. Oil the threads on the locking nut when you come back from the field.

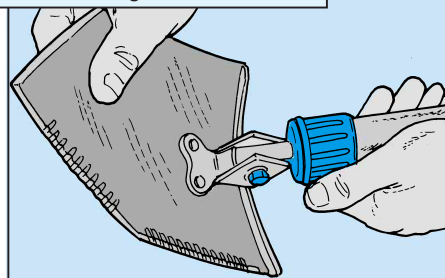
◆ Don't stand or jump on the handle—you'll just break the tool.

◆ Check the locking nut. Make sure it holds the blade tight. If you have one of those antique tools with a blade that can't be removed, turn it in and get a new one, NSN 5120-00-878-5932.

◆ Make sure the tube at the blade hinge point is in good shape. If the hole is worn, you need a new insert, NSN 5120-01-279-6396.



Check locking nut and blade bolt



Install the new insert like this:

1. Remove the blade.
2. Push the insert into the handle's tube.
3. Replace the blade.

If your entrenching tool needs any more help than that, give it up and get a new one. If you often give the tool hard use, you may need the new mattock, NSN 5120-01-363-3690. The

mattock is a hardened-steel cutting and digging tool that works well in hard or rocky terrain. It comes with its own carrier.

Get a replacement handle for the mattock with NSN 5120-01-369-5629. A replacement carrier comes with NSN 5140-01-369-7255. Use CTA 50-900 as your ordering authority for the mattock and its parts.

STEAM WITH JP-8

STEAM CURED

Dear Half-Mast,

Our unit wants to substitute JP-8 fuel for diesel in our steam cleaner. Is that OK? We're trying to cut down on the types of fuel we keep on hand.

SGT J.M.

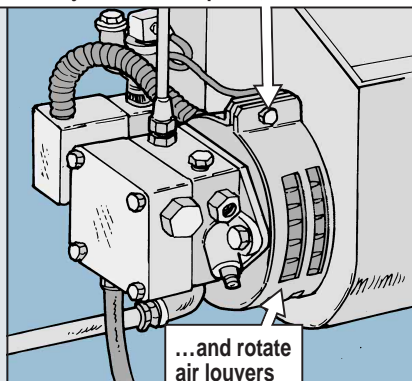
JP-8
IS OK TO
GO!

Dear Sergeant J.M.,

The Armament and Chemical Acquisition and Logistics Activity (ACALA) says it's OK to use JP-8 or kerosene, as well as diesel fuel, in steam cleaners.

You may have to adjust the air intake to get a cleaner burn when you change fuels, though. Here's how:

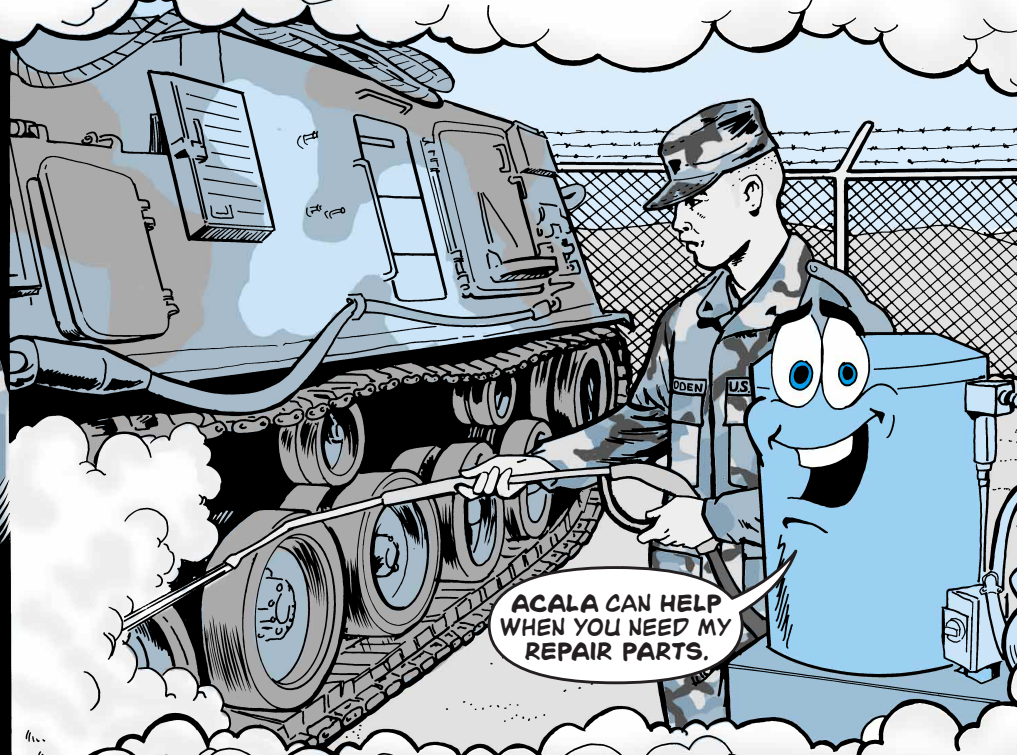
If air adjustment is required, loosen screw ...



1. With the steam cleaner operating, loosen the screw on top of the burner by turning it counter-clockwise.
2. Open the air louvers slightly to increase air flow by turning them counter-clockwise. If less air is needed, close the louvers by rotating them clockwise slightly.
3. Tighten the screw on top of the burner.

Because there are so many different kinds of steam cleaners out there, consult your user's maintenance manual for the final word. If you have any questions, contact ACALA; phone: DSN 793-1947, (309) 782-1947 or e-mail: griffinl@ria.army.mil

Half-Mast



Can't find repair parts or maintenance info for your steam cleaner?

With so many different makes and models out there, that's no surprise.

But, the Armament and Chemical Acquisition and Logistics Activity (ACALA) can lend a hand.

They can help you with the address and customer service phone number for your cleaner. They also have commercial publications for many of the

cleaners when no DA pub is available.

Jot down the manufacturer's name, and the model number of your cleaner. Then call or write ACALA:

Armament and Chemical Acquisition
and Logistics Activity
ATTN: AMSTA-AC-CTT-E
Rock Island, IL 61299-6000

DSN 793-1947, (309) 782-1947.

The e-mail address is:

griffinl@ria.army.mil

Pour on the PM!

Plastic water can, NSN 7240-00-089-3827, will serve up soothing quantities of water when you need it—if you serve up a little PM.

Consult TM 10-7200-200-13 for complete can care, then follow this PM plan:

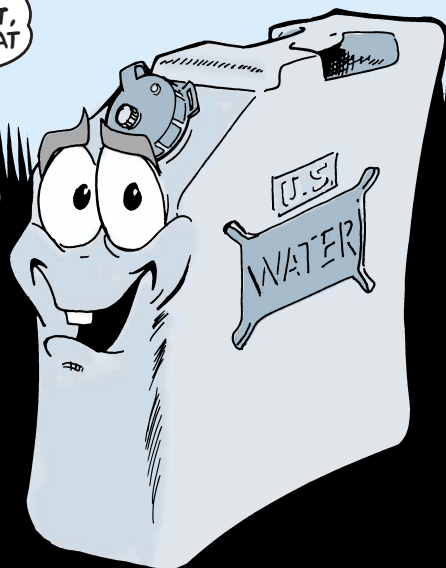
Check the can and its cap often while in use, and after you come in from the field. Look for leaks, scratches or other damage. Check inside the can and the cap to make sure they're clean.

Clean the can in hot water and detergent, NSN 7930-00-281-4731. Use one ounce of detergent for each gallon of water. Keep the water temp under 180°F (212°F is boiling) or the can will lose its shape.

Use a clean cloth or sponge to wash the can. Abrasives scratch the can's surface, making it harder to clean next time.

Rinse the can and the cap in clear hot water. Then turn it upside down to air dry. Some units use strips of dry, clean cotton cloth to wick the moisture out of the can as it dries.

CLEAN ME IN WATER
THAT'S NOT TOO HOT,
NOW THERE'S PM THAT
HITS THE SPOT.



Fluorescent Tape

If you need to mark something so that you can find it in the dark, use self-adhesive, fluorescent tape, NSN 9390-00-282-7867. That brings a 10-yd roll.

No M249 on FISTV

Only the M60 machine gun can be safely mounted on the FISTV and M901A1 ITV. If your MTOE is replacing your M60s with M249 machine guns, continue to use the M60 on the FISTV and M901 or use the M249 dismantled on the M122 tripod. Do NOT mount the M249 on either vehicle. It can't be locked down for movement. For more information, see ACALA ground precautionary message (GPM) 98-02. Your ACALA logistics assistance representative should have a copy.

Installation Kits Dropping LINS

Get ready, units. In June, all radio and COMSEC installation kits for combat and tactical vehicles will lose their LINS. Kits will become Class IX items and can be deleted from unit property books. They will then no longer be readiness reportable. Check future issues of PS for additional details.

FLUX Multimeter Fuses

Replacement fuses for the FLUX multimeter, NSN 6625-01-256-6001, are hard to find. No more. Get the 600V, 1-amp fuse with NSN 5920-00-615-3781. The 600V, 15-amp fuse is NSN 5920-00-064-2374.

F5070 Schematics

Your cries from the wilderness have been heard, F5070 dump truck mechanics. An electrical schematic that works is now available, according to Tank-automotive and Armaments Command. To get a copy, e-mail (with mailing address) or write to Half-Mast.

BMOC Enrollment Correction

The Internet address for registering in the Battalion Maintenance Officer Course (BMOC) on CD-ROM has changed. It is now: <http://155.217.35.238/accp/aipd.htm> You can use this address to enroll in any Army correspondence course. The BMOC Course number is 171 Q11. Also, you can no longer enroll in the BMOC course using DA Form 145. Enroll on the Internet.

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?